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Rules for preserving Health,

PARTICULARLY WITH REGARD TO

STUDIOUS PERSONS.

IN THREE TREATISES.

TRANSLATED FROM THE SPANISH

OF THE

Feyjoo y Montenegro (B. G.)

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Rules for preserving Health.

ESPECIALLY WITH REGARD TO

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THE SECOND



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P R E F A C E.

TH E world will wonder at seeing a treatise upon phyfic come from Spain, and more particularly when they find it written, not by any of the faculty in that country, but by a Spanish Friar. The oddity, however, of the doctrines struck me, and, I must confess, I think there is much truth in many of them, if we make a proper allowance for the difference of the countries. The physical gentlemen, I dare say, will laugh at the performance, and the more readily, as it strikes at some of their established rules. Such as it is, however, I give it to the
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Public, who, I believe, may put it in the same rank with various regimens for preserving health, which being all different, prove, in some measure, what the author says, that our own feelings will best point out what is most wholesome or detrimental. This learned Friar has written upon various other subjects with much learning and boldness; and it is not long since he died in a good old age at Oviedo.

Rules for Preserving Health.

TREATISE I.

THE UNCERTAINTY OF PHYSIC.

CHAPTER I.

THE too great confidence placed by the world upon the professors of physic, is both troublesome to themselves, and to their patients. The multiplication of unnecessary visits does not leave the former much time for study, and still less for making proper reflections upon the cases that occur to them; in which the bulk of their knowledge consists. The latter, on the other hand, are for heaping medicines upon medicines, which, taken in quantity, must always be hurtful, and often fatal.

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Many patients sink under this load of remedies, like Adrian, who ordered it to be written upon his sepulchre, that he perished by the multitude of his physicians. I imagine, therefore, I shall do a common service to both parties, if I can correct some errors, which have been imbibed by the multitude.

To avoid all equivocations, we must divide physic into three different states; its state of perfection, of imperfection, and of corruption. By the former I mean that state to which it is possible, in the nature of things, for physic to attain. It is unlikely that men should ever be able to arrive at the thorough knowledge of all infirmities, and the different remedies adapted to them; nor can it be expected, without a revelation. Far are we, indeed, at present, from this happy period. The state of imperfection is all that can be expected in physic, as practised by learned and prudent men; while ignorant empirics have driven it into that of error and corruption.

I shall not here say any thing concerning physic in its perfection, as it is not to be found in the world; tho', if it were, it would merit all the faith, which the vulgar give to their Doctors.

tors. I shall only endeavour to shew the fallibility of it in its middle state; from whence we may infer how false it is in the last.

C H A P. II.

IN order to prove how little patients can trust to their Physicians, it is sufficient to demonstrate what we have said, that the medical art, as practised by its most learned professors is still in a state of great imperfection. But this is already done to our hands, as the Physicians of greatest eminence confess it. It will be of no service to quote ancient authors upon this subject, as it will naturally be objected to me that physic has made great advances since their time. I shall therefore only cite some of the professors of greatest character among the moderns.

Michael Etmuler, a person of great learning, and whom all confess to be very eminent in the theory, and admirable in the practice of physic; complains in various parts of his work of the little knowledge we have yet attained of simples; of the ambiguity of symptoms in disorders;

ders; and of the inefficacy of the remedies now in use. In the general preface to his second volume, he says (very much to our purpose,) " that physic can rarely cure more than " the symptoms, or effects of the disease; the " cause of which remains untouched, till overpowered by nature." This he ascribes to our ignorance of causes, and the remedies adapted to them; and adds, that all learned Physicians lament this deficiency in their art; while those who are ignorant, are perfectly satisfied with their knowledge, and think they do wonders. " Sane frequentissime in praxi occurrit, ut non " nisi a posteriori productis morborum, ac symptomatibus occurratur; a priori vero, causa, " seu spina intacta relinquatur: idque vel ob " causæ genuinæ ignorantiam, vel appropriati " remedii defectum: medicis ignorantibus optimè se agere opinantibus: scientibus vero " tacite ingemiscuntibus, et suos defectus adhuc " deplorantibus."

The great reputation which George Ballivio of Rome obtains among the professors of physic, is proved from there having been 10 editions of his work published in the space of 30 years. This great man, after pointing out the causes which hinder the advancement of physic, says,

says, " that it is not to be wondered at, if the
 " medical books hitherto published, tho' writ-
 " ten with the greatest diffuseness, should con-
 " tain only pure abstract philosophy, and the
 " symptoms arising from nature should remain
 " unconnected and unexplained; while the
 " very principles of practice are so confounded,
 " that the most learned do not know whom
 " they are to believe, what doctrine to follow,
 " or the path they ought to pursue in the cure
 " of disorders. If (adds he,) we consider the
 " present state of practical physic, we shall find
 " it vitiated with false axioms and general
 " principles, arising either from the different
 " sects of the practitioners; or from prepos-
 " terous ideal rules; or from the imaginations
 " and prejudices to which every Physician is
 " subject. We must consider, therefore, this
 " science as yet in its infancy."

Thomas Sydenham, acknowledged by all Europe as the most knowing of the last century in the practice of physic, speaks with more uncertainty and doubt than all the rest, after the severe study of many years, and observing with the greatest attention the various steps with which nature proceeds in our disorders. We hardly read any of his rules that were not plainly dictated with a trembling hand. Urged
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by the noblest sincerity, a prerogative which gives no less beauty to his writings than the pure latinity which shines in them, he frequently lays before us his doubts, and confesses his ignorance. He places but little confidence in what he has experienced himself, and hardly any in what is laid down by other authors. In his preface he says, " they with great readiness
 " write down the cures of various disorders,
 " but the difficulty of giving reality to their
 " words, and making the events correspond to
 " their promises will be known by those who
 " consider that there are many diseases men-
 " tioned by these practical writers, which nei-
 " ther they nor any other Physician yet knew
 " how to cure." How unpardonable is it in such authors to give, as remedies to the public, what they themselves know to be ineffectual, and expose their readers to be deluded in a cure which may cost the patient large sums, and even his health.

Sydenham, in another part of his works (in Epist. Ded.) confesses, that when, after much study and continual observation, he imagined he had obtained a sure method of curing all kinds of fevers, " he found his eyes were only
 " opened to be filled with dust, tho' glorious
 " as

“as that of the olympic games.” So perplexed and doubtful did he at length remain, after so much study.

Some years after the publication of the above mentioned works, and in the year 1714, Monsieur Le Francois, a Physician of Paris, printed his critical reflexions upon the art of medicine. He joins with the foregoing authors, in lamenting the little progress which this science has made. In speaking of physical writers, the following words are remarkable, which I translate faithfully from the French language. “The difficulty of making observations with proper care and exactness; the multitude of infirmities, which renders few of them exactly alike in their essential circumstances, the contempt in which the public holds observers, and the esteem which they give, on the contrary, to bold inventors of systems and their followers, has caused but few books of much use to be found amidst the immense number of medical treatises, with which we are overwhelmed. Perhaps it may be said there is not one upon which we may place intire confidence.” If this declaration be true, what impenetrable clouds overshadow the professors of this art. Besides
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the difficulty of discerning the few useful books, from the multitude of uselefs, which few are able to do, especially as there is an equal contention about which are such, the arduous task still remains of knowing to what part of them, if any, we may give intire confidence.

The same author, in the year 1716, published a project for the reformation of the medical art, in which he largely shews the great imperfection of its present practice. In explaining the reasons of this defect, he places among them the useflessness of the present books which have been written upon physic, and qualifies them with stronger expressions than the foregoing. He says the treatises hitherto written on this art, are full of obscurity, uncertainty, and falsehood. I must not omit that he had spoken before of the present state of physic in France, because it conduces much to our information. "Tho', says he, there is no country where new regulations are not necessary to perfect the science of physic, this reformation is no where more wanting than in France, as in no kingdom there is so much disorder in the practice of physic, as in this." What he here says renders the credulity of the Spaniards

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truly ridiculous, who when they see a French Physician, of but middling reputation, think they have found out a person, capable of recalling souls from the other world.

Our ingenious countryman, Don Martin Martinez, in his two volumes upon sceptical physic, has learnedly shewn the uncertainty of that art. He confutes many maxims established among the professors of it; and tho' his arguments do not always prove them false, they, at least, render them doubtful.

In short, it is almost common to all learned and able Physicians to confess the weakness of their art in overcoming infirmities; while the more ignorant boast, with the greatest confidence, of being able to expel those enemies. We may even say, that this confidence is a characteristic mark, to distinguish the learned from the ignorant professors. The *Conciliator*, in the definition he gives of a bad Physician, has added, as an inseparable quality, his never confessing his own ignorance.

Let the common people therefore consider, who think they have found the deity of Apollo in an ordinary Doctor, and the virtues of potable

ble gold in the most useless medicines of the shop, what trust can be given to a science which renders those so doubtful, who have most studied it. If in the rules laid down by the best authors, there is so much contradiction, how can a Physician promise recovery to a patient, with entire confidence, when the most he can have done, is to have thoroughly studied those rules? If those of greatest application find themselves perplexed in the path they ought to take, what certainty can be expected from common doctors, in the cure of our disorders? If those giants of literature find themselves so weak in counteracting the enemies of our life, what can be expected from others of a pigmean race?

C H A P. III.

BUT it is of no importance that the physical authors themselves shew us the uncertainty of their art; for their perpetual contradictions sufficiently discover it. Every thing is disputed in physic, therefore, every thing is doubtful. The continual wars of physicians gave Peter of Apono reason to say, their science ought not to be dedicated to Apollo, but to Mars; of which Cornelius Agrippa gives a still more severe interpretation lib. de vanit. scient. cap. 83. Their doctrines are more at variance with each other, than the four qualities of the humours which they imagine to be in human bodies. The Centaur Chiron, supposed to be the first master of that art, has contributed the confusion of his two natures to the doctrines of his successors. Soon after his invention of this science, he was exposed like a foundling child; for the sick were then placed in squares, and public streets, that passengers might prescribe for them, whose opinions must necessarily be different. At length, Hippocrates

crates took the orphan under his care, and brought her up in the Island of Coos, where the perpetual agitation of the waves were a new presage of the never-to-be-reconciled contrariety of doctrines.

Next in fame to Hippocrates, and shortly after him in time, succeeded Praxagoras and Diocles Caristius, who changed a little the method of that wise old man; for the first reduced all disorders to infirmities in the liquids, and the latter extended the power of the number seven, to which Hippocrates had given jurisdiction over particular days, to the climacterical years. Herophilus succeeded, who reduced all physic to reasoning and dispute, without regarding practice or experience, which was the same as separating art from nature. Then came Chrysippus, who overturned the establishments of his predecessors, to meet himself with the same fate from his disciple Pisistratus, tho' both agreed in banishing bleeding and purging from physic.

Some remains of this ancient practice continued to the time of Pompey the Great, when Asclepiades threw down all the doctrines of Hippocrates, whom he insultingly called Death's Doctor, and termed only those medicines remedies,

medies, which eased and soothed his patients. This flattery to our sensations, and the accidental recovery of a person who was carrying to be buried, rendered him master of the physical world. His publicly defying death contributed much to his success, as he bragged he should never be ill; and, in fact, he lived to a great old age; when he broke his neck by tumbling down stairs. Themason, his disciple, changed entirely all the practice of his master, and became chief of the Methodical sect, which ought not to have obtained much fame in Rome, since Juvenal speaking of his followers, under the name of their chief, says

Quot Themason, ægros autumnno occiderit uno.

Atheneus flourished after him, who attributed all disorders to an emanation of detached spirits. After him appeared Archigenes, founder of the Eclectic sect, whose object was to choose whatever was good among the rest; but he was so superstitiously bound to the rules of his art, that he declared he would not omit the observation of one of them, tho' a whole city was to perish by it.

We will pass over the elegant Cornelius Celsus, who, in his works, does not shew a
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strong adherence to any sect, and only observe, that, like Asclepiades, he laughed at the observance of critical days by unequal numbers, as established by Hippocrates.—We now come to Galen, a man of vast comprehension, and subtle genius, without doubt, and capable of restoring the doctrine of Hippocrates to the empire of the world, if he had not rather chosen to introduce his own, under the specious pretext of commenting, and defending that of Hippocrates. He obtained such wonderful success, that there were none to contradict him for many ages, as the fall of the Roman Empire, and the irruption of the barbarians, extinguished all arts and sciences; and the physicians who wrote, only copied from their predecessors. The Arabs, who, during the slumber of Europe, became masters of philosophy and physic, still continued followers of Galen; and their principal authors, among whom are Rasis, Averroes, Alkindo, and Avicenna, have only added superfluous discourses, and useless subtleties, to his works.

For this length of time was the empire of Galen preserved, which we may really call barbarous, upon account of the infinite quantity of blood, which this great patron of the lancet
caused

caused to be shed by all the human kind. Till, at the beginning of the sixteenth century, Paracelsus revived the antient Hermetic philosophy, and attacked both Hippocrates and Galen with such fury, that he would not leave one of their principles in force. By means of some extraordinary cures, perhaps not true, as we have only his disciple Oporinus for witness of them, he acquired a great number of followers, notwithstanding he died at the age of forty-eight, falsifying what he had bragged of his remedies, that they would lengthen the human life to ages. Among his disciples Helmoncius, of whom likewise prodigious cures are recounted, added to the ideas of his master the dream of the soul of the world, a fairy which is every where, and does every thing.

The chymical school then rose up, founded upon experiments made by the violence of fire. It knew no other principles, as well of our health as of all other bodies, than nitre, sulphur, and mercury. From this appeared Takenius, who raised a new faction between acids and alkalines, who, according to his idea, may be called the whigs and tories of nature. This party found success, and took whole provinces

vinces from Galen, tho' without declaring war against Hippocrates, whom, on the contrary, they boasted to be their patron.

In the mean time anatomy began to be studied, from the observations made in which science, Silvius, Wallis, and others, formed a system entirely different, both from the followers of Galen and the professors of the chymical school. Santorius next produced the plausible system of mathematical physic; in which he considers the force of solids and fluids, by the laws of hydrostatics and mechanics. The Physician is to keep a perfect equilibrium between these two powers, and, like Catherine de Medicis, always throw his assistance into the weaker scale, as the total conquest of either party threatens ruin to the animal republic.

Thus have systems changed, and new ones driven out the more ancient, till the uncertainty and tediousness of these studies made prudent Physicians pursue another path, and follow nature alone, giving confidence to nothing but experiments. As soon as the illustrious Bacon of Verulam had opened the eyes of physicians and philosophers, and taught them, that by these means alone those sciences could be advanced,

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many wise practitioners have thrown their eyes on this side, and collected with care some observations, tho' imperfect, as we shall hereafter shew. This party embraces the most famous Physicians at present in Europe, who, tho' they have bid adieu to Galen, still fight under the banners of Hippocrates, whose doctrines, they say, always agree with their experiments.

Ballivio, tho' a great promoter of observation, and a declared enemy of systems, was enamoured with the novelty of hydrostatical physic, and could no more abandon it than the youth that rails at the sex, but follows the woman he loves. But this system has no greater advantage than the rest, except that, like a new born child, its little trifles are pleasing. He wanted to unite three words, Hippocrates, system, and experiment, and in this triumvirate placed the absolute regulation of practical physic. With regard to his reconciling Hippocrates to experience, most professors in our times are of his side, and the credit of that learned ancient is greatly re-established. Some, however, pretend, that his precepts should be examined carefully by the light of observation; and a few are not wanting, who give no credit

credit to the rules of the famous Coan; as Michael Lewis Synapius, a Hungarian Physician, who, a few years ago, published a treatise of the vanity, falsity, and uncertainty of the aphorisms of Hippocrates.

We have omitted various things in this historical recapitulation of physic, as its division into empirical, methodical and rational, and who were the protectors of each kind, not to render our essay too long, as the many contradictions we have seen are sufficient to prove the great uncertainty of that science.

C H A P. IV.

BUT, after all these disputes, are Physicians at length agreed? I fear they are now more at variance than ever, for the variations have multiplied as their books encreased. Modern professors are divided between the Hippocratical, Galenical, chymical, and experimental schools. As to the followers of Paracelsus and Helmentius, they are now rarely to be met with. All follow different methods, according to the doctrine which they embrace, and it is an absolute falsehood that they agree in their practice, tho' they differ in their systems. For this consult Etmuler, (Institut. Medic. part. 3. chap. 2.) where he says, "that according to the variations of the hypotheses of Physicians, their method of cure is entirely different. In the books of those who follow different systems, we meet with great contradiction in their practical rules. You need only open John Doleo, to see that, after having given his opinion of each disorder according to different systems, he proposes a different cure according

according to each. But Physicians are not only at variance with each other from following different maxims, but those who pursue the same cannot agree. This is seen in Spain, where almost all the faculty follow the precepts of Galen, and yet, two or three, if you consult them separately, will rarely follow the same method of expelling the disorder; from whence we may judge, that their unanimity in a consultation is more owing to their prudence than their opinion. This contrariety of sentiment does not only arise among those who follow the same system, but even among those who are regulated by the same author. The practice of Lazarus Riberius is the absolute rule of our common Doctors; who, if they read other authors, only make use of them for conversation, and not for their guide. And yet we all see how much they disagree, and if we consult two Physicians apart, they will prescribe different remedies. They place their attention upon different precepts of Riberius, and even if they pitch upon the same, they interpret it differently, as I have seen more than once. One orders bleeding for a fulness of blood, while the other prescribes a purgative for the badness of the stomach. If a third is called in, he will think both medicines ineffectual.

C H A P.

AMONG these discordant sentiments of Physicians, formed by the difference of authors, by the different interpretation of them, and by the different observation and judgment had of the symptoms, how is the patient to act? You will say he ought to call in the most learned, if there are choice; but often will he not know who is the professor of greatest learning. The applause of the world frequently deceives us, and artifice and policy is more the cause of this fame than real knowledge. Chance may raise an ignorant person to reputation, and one misfortune ruin another of the greatest ability. This happened to Andrew Vassalio, who esteeming a Spanish gentleman, whom he had attended, to be dead, desired his body to be opened, but the amputation knife had no sooner struck his breast, than he gave manifest signs of life, and died of the wound, rather than of his disorder. But I will suppose the patient meets with a Physician

cian of the highest line, yet still for this he is not more secure. John Argenterio was esteemed a prodigy of literature, and yet almost all the persons who came under his hands either died or fell into worse disorders, till, at last, no person sent for him.

Let a Physician be ever so knowing, there will be always danger in his cure, as it will be contrary to that of other Physicians equally learned. All will equally produce reasons and experience. What Ariadne can give the clue either to the Doctor, or his patient, to escape from this labyrinth. There is no rule laid down that is not disputable, beginning from the famous principle of curing disorders by their contraries. Indeed, this principle, taken generally, is either false or useless. It is useless, if, by contrariety on the part of the medicine, we mean any virtue that can expel the cause of a disorder; for, in this case, it only means that the cause of the disorder may be expelled by what has power to expel it. It is false, if we mean a contrariety in the sensible qualities of either; for all contraries of this kind are not remedies, and many things are such that are not contrary. We see that all fevers are not cured by cold things. Indeed, they are often improper,

improper, where the languid heat of the fever ought to be increased to promote fermentation, and assist nature in her endeavours to throw off what oppresses her. We see this also in every kind of drug which has no manifest contrariety in its qualities to the infirmity which it heals. If the axiom means a contrariety of secret qualities, it is likewise useless; for this opposition is not to be discovered by reason, but experience; and after I have found out that such a remedy is contrary to such a disorder, the axiom is of no service to me. We may also say that it is false in this sense; for there are many remedies which operate not by opposition, but union, as all absorbents, which imbibe the noxious humours by the conformity of their pores with those of the morbid cause.

But leaving this principle, which the Physicians who follow it abandon in practice, and only find out the contrariety after the disorder is expelled, we will particularize the difficulties which occur in the most common remedies, to shew the little faith we can place in them.

C H A P. VI.

THE first that offers is phlebotomy, a remedy which, if we may believe Pliny, men learned from the Hippopotamus, an amphibious animal, who, when he feels himself indisposed, rolls his body upon the sharp points of broken reeds, and after having extracted the proper quantity of blood, closes the orifices by wallowing in the clay.

Hippocrates was the first who gave reputation to bleeding; Galen raised it to still higher esteem, and greatly extended its use. He was followed unanimously by all Physicians till the time of Paracelsus, who could not hinder its gaining ground again; and to this day it is an esteemed remedy, though used in different manners. It has, however, had great opposers, who have blamed it in almost all cases. Among the ancients we may reckon Chrysippus, Aristogenes, Erasistratus, Strato, and, omitting others, I believe we may also count Asclepiades.

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In later ages we find Paracelsus, Helmontius, Peter Severino, Crollius, Quercetanus, Poterius, Faber, Crusius, Tozzi, and many other famous men.

Following therefore the common rules of prudence, it cannot be denied that so many persons of great learning give some probability to their opinion. Now as they have not only condemned bleeding as useless, but also as hurtful, it follows that there is a probability that bleeding may always do harm. Whoever, therefore, opens a vein, subjects himself to this doubt. Nor is it of any avail to tell me that on one side there is but a small probability, and on the other a much greater; for the aphorism tells us that many things that are false appear more probable than those which are true. And though the probability of danger in bleeding may be little, yet we shall increase it in such a manner, that in practice it will appear more than a doubt. However, what I have said is sufficient for my intention, though, the more reasons there are for doubting, the greater the danger will appear.

If any person tells me that this opinion has nothing to do with probability, as it is contrary to experience, which shews bleeding to be
often

often salutary, Hippocrates will defend me by his aphorism, which tells me that experience is fallacious. In fact, except in a few fits where experience seems to be declared in favour of bleeding, (and perhaps these might be better cured some other way) the recurring to this remedy is very doubtful. The authors who declared against it were not ignorant of the experiments. They cannot therefore be so very clear from having had no power over their opinions. Those who, following Galen, bleed in putrid fevers support their practice by experience, and yet numberless are the Physicians who regard it as destructive. And Doctor Martinez says, that this maxim has killed more men than gunpowder.

Experience, if not very constant and well known, is a doubtful criterion, for all alledge experience in their favour. If a Physician does not give poison to his patient, some will live while others die. The patron of the remedy which has been given, attributes his life to it if he recovers; but if he dies, says his death was owing to the insuperable force of the disease. The enemy of this remedy, on the contrary, says, the medicine killed him if he dies; and that the strength of nature recovered him

if he survives. We often blame a Physician for a death of which he is innocent, and praise him with as little reason for a recovery to which he gave no assistance. The fact is, that a patient may survive and even get better after a bleeding given without reason, in the same manner as he would though the Doctor had given him a wound with a dagger. In the transactions of the imperial academy we are told that a nun was cured of a bad fever by having ten pounds of blood drawn from her in the space of a few months. I should be glad to know from Signor Vallisnieri, who informed the academy of this event, in order to encourage those of his profession in the use of the lancet, what angel revealed to him that the nun would not have got better, and perhaps in less time, if he had not taken so much blood from her. We should likewise be desirous of knowing what constitution she remained with, after so severe an attack, as it is certain that many who have remained with life after the violent proceedings of the faculty, are reduced to so weak a state of health, as to be capable only of a short and painful existence; while the Physician triumphs in his cure, as if he had done more than delay the recovery and ruin the constitution. Perhaps, if her Doctor had left
her

her more to nature, and treated her with less violence, she might not only have recovered, but enjoyed her usual strength. The same author also tells us of another person, from whom he drew almost all the blood out of his veins. That it was extremely acrimonious, and was succeeded by a new supply of blood of a better sort. The truth of this event I leave to the judgment of the learned, and only desire those who are endowed with prudence to tell me whether they would follow this example. The real fact is, that these daring Physicians place before our eyes one or two patients, the strength of whose constitution could fight both with the disorder and the fury of the Doctor; burying under oblivion those numbers who perished under their hands. Many observations from experience which are found in books, and by which Physicians authorize their practice, are as fallacious as what I have here mentioned. From hence I infer, that as there is so much uncertainty in experience, as laid before us, that by which bleeding is defended, is not sufficient to overthrow the opinion which absolutely rejects it.

However, I will agree that the common notion is true, and that in many cases bleeding is
proper,

proper, and, indeed, I believe so. Still the difficulty remains concerning when we are to bleed, and how much blood we are to take away. With regard to the quantity, no rule can be given, as it depends upon the appearance of the symptoms, and the strength of the patient, which one Physician may judge greater than another. With regard to the proper time of bleeding, opinions are so different, that they must occasion in the most learned Physician the greatest doubt, and an impossibility of not mistaking it at times. He will read in some authors that bleeding is necessary in such a disorder, and under such circumstances. He will read in others, that it is fatal under the same disorder and circumstances. Which of these is he to follow? The patient generally has no difficulty in obeying his Doctor; for as he hears him talk with confidence, he little thinks how much what he orders is disputed. If, however, when the lancet is opening his vein, he could hear twenty or thirty very learned and experienced authors that are crying out to the mind of his Physician, "hold thy hand, do not bleed him, thou destroyest him!" how would he behave upon this occasion? But it will be answered, that the Physician weighs the probability of both opinions. How do we know he weighs

weighs it well, when so many are of a different way of thinking?

I cannot tell when our followers of Galen bleed with propriety, but I am confident they do it wrong many times; for they hold a putrid fever as a general cause for that operation; when it is certain, from the best authors, and our own reason, that the loss of blood must often do harm. It hinders the fermentation of the disorder, which ought to be promoted, that nature may throw off the particles which oppress her. A fever is an instrument of nature to exterminate the noxious humours, as the incomparable practitioner with regard to fevers, Sydenham, says, and with him the most learned Physicians of our times, "*Cum et febris naturæ instrumentum fuerit ad hujus secretionis opus debitâ operâ fabricatum*" (fol. mihi 100.) And a little lower, "*Febris naturæ est machina ad difflanda ea, quæ sanguinem malè habent.*" Lucas Tozzi observed, that those disorders, where no fever is raised, are much the longest. Every person knows the power of fevers in curing colds, fits, attacks of the gout, and other disorders. Celsus, and before him Hippocrates, recommended the febrile agitation as useful in many distempers. But common Physicians
always

always consider a fever as their capital enemy, and proceed against it with bleeding and purging, which is the same as with fire and sword. I am of the opinion of Etmuler, who relates that some authors have observed that the blood was consumed by the ardor of the fever in the bodies of those who died of that disorder; from whence, inferring how improper it is to assist in the draining of it with the lancet, he concludes in these words, "I can have nothing to do with butchers of this kind, who drain so uselessly the treasures of our frame."

I must not here omit that the inferences made from the colour of the blood are very uncertain, as it changes very much when it comes out of the vessels, and as every person has a different kind of blood, which is so adapted to his constitution that he could not live without it, bad as it may seem to the Physician, for this reason, the invention of transfusing blood from the veins of a man in health into those of a sick person has proved so ineffectual. This is the opinion of Etmuler, (inst. medic. cap. 4.) The judgment we can form of blood has been deservedly treated as uncertain by Helmontius, who also says, that every person has a particular kind of his own, and even in
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that of persons in health there is a great difference. Besides, the colour of blood arises from causes very different from those to which it is ascribed by the Physicians. The famous anatomician, Philip Verheyen, observed, that if you mixed spirit of vitriol with blood it turns it black, therefore blackness is not a certain symptom of heat. He also found that alkalines gave it a red colour. In short, whoever knows that two drops of a red liquid, called lac vaginalis, can give a milk colour to a whole basin of water, will lay no stress upon what common philosophy says with regard to the causes of difference in colours.

C H A P. VII.

FROM bleeding we must pass to the other leg of physic, to use the expression of Galen, and this is purging. All Physicians unanimously acknowledge in purges something of a malignant quality, which must render them in a degree noxious. Whether in certain disorders, and at particular times, they may be useful is in doubt; therefore the detriment is certain, and the advantage doubtful.

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Those who love taking physic, believe that cathartics tear only the vicious humours out of your body, an error under which I lay for a long time, till my own experience, and the reading of good authors corrected me. It is certain that they separate both the useful and noxious, and melt, tear away, and precipitate those juices which nourish us, together with the excrementitial humours.

We must likewise observe that not every excrementitial humour, though incapable of nourishing us, is to be considered as useless to the body. Great part of it has its office, and Nature makes use of it for her particular ends. The humour of the bile is necessary to precipitate the dregs of our food, and the acid in our stomach to give us appetite to eat it. Purges, therefore, may be hurtful many ways by the bad impression of their destructive quality, by tearing from our bodies part of the nutritive juice, and by evacuating humours, which, though incapable of nourishing us, are necessary for the functions of nature. To which we may add the conducting part of the excrements of our body through ways which nature has not destined for their expulsion, which may possibly cause some hurt to those passages; since,

since, if sharp humours are forced through narrow paths, some damage may be done to the fibres of them.

The division of purges, from the effect they cause upon the humours to which they are appropriated, as that some carry off the bile, others the phlegm, &c. though generally received, is an imaginary distinction in the opinion of the most learned authors. They assure us, that there is no purge that does not evacuate indifferently all kinds of humours which fall within the sphere of its activity, and that the differently coloured excrements, according to the difference of purges, only proceeds from the tincture given them by the medicine, and not from any different juices being precipitated, as persons have imagined. What I can assure for certain is, that if a man of the best constitution should repeatedly purge himself with flower of thyme, a cathartic appropriated to the melancholy humours from the blackness of its excrements, will always void humours of that colour. This I know with entire certainty. Now such a quantity of it could not be found in the bodies of six hypochondriacal persons, as it is the juice which we have in least abundance.

It may be replied to me, that notwithstanding purges expel both what is useful and vicious at the same time, yet it may be proper to take them when nature is more hurt by the bad which she retains, than by the good which she would throw off. This is all that can be said in favour of cathartics. I answer to this, first, that the Physician ought to be well assured things are in this situation, otherwise he will act like the Turks at the siege of Rhodes, who, seeing some troops of theirs mixed in an assault with the Christians of the garrison, with barbarous fury pointed their artillery against both, and made equal slaughter both of friends and enemies.

But when can the Physician come to the certain knowledge of things being in this situation? It can rarely, if ever, be the case in common disorders. The Physicians are disputing whether we ought to purge at the beginning of fevers or not. Hippocrates is against it, except the body swells, and tells us to wait till the matter is ripe to be carried off. But when the matter is ripe nature will separate it of herself, as we experience every day. Therefore, a purge is unnecessary, and the making use of it is like bringing in auxiliary troops

troops after you have conquered the enemy. Reason and experience have convinced me that nature never fails to bring this work to perfection, except in some rare case she is hindered by a particular obstruction. They tell us there is no fear of a relapse, if the patients are purged when the matter is ripe; but this is rather preventing a future disorder, than curing that we have at present. Besides, how do Physicians know that relapses are caused by not purging at that time? Many fall back that take physic, and many that do not. Yet, I should imagine, the relapse does not depend upon that cause, but upon some portion of the morbid matter still remaining indigested, and without being put in motion in our bodies. After lying hid during all the preceding attack, it breaks out with greater danger of the patient, as it finds his forces more weakened. Although this idea may not be certain, it is probable, and probability is enough to render a Physician doubtful of a purge being then necessary.

Fullness of blood is considered as an inexcusable cause of purging at the beginning of the disorder. The most learned Martinez has rendered its necessity doubtful even in this case.

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As this causes an unquiet motion of the juices, which threaten to molest some vital part, part of them they say must be expelled at all hazards. But the same motion is experienced at the beginning of the small pox, and yet the best practitioners never purge then. Thus is the use of cathartics filled on all hands with doubt and hazard.

I must likewise add, that notwithstanding the harm which may be done by these violent medicines, they have not the force which is attributed to them of rooting the morbid matter out of our bodies. Formerly, when I had more faith in these remedies, I used to take them when I suffered a periodical indisposition, which even still oppresses me. Its common symptoms are an extreme heaviness in my limbs; a total loss of appetite; and an oppression even upon the faculties of my mind, which continues about two months. I believed, together with my Physicians, that it was caused by too great an abundance of excrementitial juices, and consequently that I must use purges for my remedy. But I here declare they never did me the least service, though I used all kinds of cathartic medicines during the space of seven years; varying the species and quantity in
many

many ways. I may say the same thing with regard to the diet I observed. After a certain period the disorder finished by small eruptions breaking out in different parts of my body. Making reflexions upon these repeated experiences, it seems to me that many of our disorders arise from a small portion of noxious matter intermixed with our frame, which is so deeply buried in our bodies, or for some other reason, which I know not, is not subject to the activity of cathartics, but obeys the will of Nature alone, who has her fixed period to drive it out, without all the spurs in the apothecary's shop being able to accelerate her course. The term being at length arrived, Nature triumphs over her enemy, of small stature indeed, but of mighty force, and expels it from her empire in eruptions. Some years I remained in this uncertainty, not trusting to the smallness of my own experience, till, reading Etmuler, I found my opinion authorized by this great professor. After treating (part. 3. instit. medic. cap. 5.) of the great destruction which purges cause in the human body; he says they are also useless, in the following words. "It is not in their power to reach the small seeds of our disorders; and many indispositions continue obstinate, after the repeated use of cathartics."

“thartics. We may therefore conclude, that
 “purging medicines, besides the damages they
 “occasion, only search the branches, and do
 “not touch the main seat of the matter which
 “causes our disorder; unless, indeed, it should
 “lie in the bowels, or other places through
 “which they pass, when their utility is not to
 “be doubted. However, the case is very of-
 “ten disputable, as Physicians are frequently
 “undecided whether the complaint lies in the
 “first passages or not.”

With regard to the choice of purges, every Phy-
 sician follows his own fancy, and there is not one
 of these medicines that has not commonly their
 particular favourers. Those which pass quiet-
 ly, and without causing pain, are generally
 preferred. I confess, I have my difficulties up-
 on this subject, as the pain may perhaps not be
 caused immediately by the medicine, but by
 the sharp humour which it has put in motion.
 If this be the case, we ought to prefer those
 purges which give pain, as expelling the sharp
 humours, and abandon the hypocritical tran-
 quillity of those which glide unperceived
 through us, as it may be derived from their
 taking along with them a great quantity of the
 nutritive juice, whose softness may render
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their passage imperceptible. We may therefore with reason judge that these mild purges only carry off the bland and innocent juices, which by their suavity hinder any pain in the entrails they pass through. This is only an idea of my own, which I submit with humility to the examination of any learned Physician, as also every other which is not supported by some great author.

After purges it is natural to pass to their associate, clysters, of which Physicians make use when they are not able to apply the former, to relax the bowels, under supposition, that the use of mild clysters can never do any harm. However, the famous Sydenham strongly forbids their use, as well as of all other evacuations, in every fever where the fermentation is relaxed, because they render it still more tardy in rising to a head. He says even more, that in all fevers, at the time of their decrease, any evacuation is hurtful, and that he always endeavoured at that time to keep the body of the patient costive. All professors know that in the manner of treating fevers Sydenham alone gives probability to an opinion. Let those, therefore, who believe in the coherency

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and security of medical rules, make all these differences agree together if they can.

C H A P. VIII.

IN fine, there is nothing certain in physick. One Physician abhors a remedy, which another idolizes. What noxious effects do not some, and what surprising virtues do not others proclaim to be in hellebore. The same may be said of antimony. Precious stones, which are the principal support of Apothecaries, are blamed not only as useless, but even as hurtful, by excellent writers. For my own part, I believe that the most common herb in the field is of more use in physick than all the emeralds of the east. What shall I say of all those cordials, which are only such in name? Gold cheareth the heart while in the purse, but not when forced into the stomach. How can our vital heat derive any virtue from it, when the most active fire can make no alteration upon that too precious metal. The virtue of the stone called bezoar, which enters into almost all cordials, is a mere fable, if we believe, as I think we may, Nicholas Bocangelino, Physician

cian of the Emperor Charles V. Jeronmo Rubeo, Physician to Pope Clement VIII. says, that having many times used the most famous bezoar stones which were in the possession of princes and noblemen, he could never find the least efficacy in them, and many other learned authors are of the same opinion.

Expensive and rare medicines please many Physicians, and all Apothecaries. They seem to want to prescribe, as Pliny said, the ashes of the Phoenix. The same may be observed of all exotic remedies, and which come to us from distant countries. The Physicians find their account in them, as they set off their great knowledge; and the Apothecaries are not sorry to see them prescribed, as they encrease their capital. But as Pliny says in another place, and experience shews us, cheap remedies, which we have at home, are much more useful and secure. "Drugs, cries he, are brought from the red sea to cure ulcers, when every countryman sups upon what is more conducive to that end at home."

Dr. Duncan, of Montpellier, tells us of a French Physician, who used to prescribe coffee to all his patients. However, we are all now

persuaded, that neither coffee or tea can be of much use to us in our disorders. Even the most famous remedies are not without their opposers. Bark we know has many enemies, and Fernelio even declaimed against mercury, though without reason, since all the world has experienced the singular virtue of this powerful mineral.

To this uncertainty of physic, upon account of different opinions, we may add the change of fashion, which has not less power over this science, than in our manner of dressing. While some remedies lose their vogue, others are coming into it. The same happens to physic as to Alexander in his conquests, who, while he was submitting new provinces to his yoke, lost those which he left behind his back. All remedies upon their first invention have been famous, from whence are derived the magnificent names that are given to them, of the angelic water, the golden julep, and others of that nature. But, now-a-days, neither the golden julep, nor the angelic water, nor the panacean pills, nor all those other compositions to which the powerful activity of mercury has given credit, dare to hold up their heads before English salts, which I esteem a doubtful remedy, upon account of its purging with so much mildness. However,
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both this and other medicines, which are now in vogue, will be dethroned by fresh nostrums, which time will produce, as the fate of this science is to be in perpetual fluctuation. What am I to say of the virtues which are falsely attributed to many remedies? The authority of Vallas is sufficient for me upon this subject, who assures us, that the Physicians never speak with less truth, or foundation, than when they are treating of the power of medicines.

C H A P. IX.

I Will conclude what I have to say concerning remedies with the important observation, that, though they are well chosen and properly adapted, they must be hurtful when they are given in great quantities.

Impediunt certè medicamina plura salutem.

It is in this where common Physicians principally err. "O, my scholars, exclaims Ballivio, with how few remedies are disorders cured! How many has a load of physic deprived of life!" Sydenham laments this disorder in various places, and persuades practitioners to proceed
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with more sparing hand in the writing of receipts, and to trust much more to the power of nature ; since it is a great error to think that she always needs the assistance of art.

True it is, that in this infamous practice the Doctors, perhaps, are not so much to blame as the patients themselves, who are always begging for something to ease their complaints. This, perhaps, is the greatest error of the vulgar in the use of physic. They hold that Doctor as the best who heaps receipts upon receipts, and when, by the fury of his proceeding, he has hurried the patient to the grave, they say that every thing has been done that was in the power of medicine, when, on the contrary, every thing has been done that the most stupid ignorance, or the most criminal condescendency, could dictate. Leonard Botalo, Physician of Henry III. King of France, says, that these obliging Physicians, who write whenever their patients desire it, are the most hurtful of all.

Those who defend the doctrine of critical days, have nothing to answer to the objection which is made that experience does not prove them, but that the unseasonable use of remedies hinders or precipitates nature in her course.

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From hence two consequences may be derived. The first is, that all Physicians err in the use they make of remedies, since there are disorders, if they will confess ingeniously the truth, as Lucas Tozzi assures us, which observe their crisis exactly according to the periods that are marked out. The second is, that the Physician ought to remain in entire tranquillity, not to disturb nature by ordering any medicine, since there is none but must make some change. Doctor Boix has said much upon this subject, though his rules, perhaps, are not to be entirely followed. I am confident, however, that the quantity of medicines, which common Physicians order, weakens greatly the force of nature, and, at a time when she wants all her vigor to overcome the enemy, disturb her in the operations she is performing to throw off the causes of the disorder.

With regard to ignorant Physicians, it is in vain to persuade them of this truth, for ignorance is always indocile. It will be equally fruitless to convince those who have any understanding with the Apothecary, or have themselves some interest in the vent of the medicines ; but their souls are in a much worse situation than the bodily healths of their patients. I flatter my-

myself there are but few of these; for to imagine Physicians are in general so wicked could only be said by the calumnious Cornelius Agrippa, lib. de varit. scient. although he himself was of the profession. On the contrary, I believe that most Physicians are persons of conscience, which I attribute to their being so much with dying persons, where they are continually hearing words of edification, and seeing examples of Christian piety.

There are indeed some, and not a few, who prescribe more than they ought, to keep up their credit, because they find they are discharged, and others sent for, if they do not order something new every day. I must inform these of the weighty obligation they have in conscience not for any worldly respects to pass the bounds which reason prescribes to them. Neither the danger of not being sent for, nor the fear of being cried down by the Apothecaries, nor the shame of appearing unknowing among the illiterate, can excuse them in the eye of heaven, from whatever damage may result by their being too free in their prescriptions.

Many take a middle path, which is to order light things, that can cause no harm, if they do

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no good. But if what they order comes under the list of medicines, it must make some change, and if therefore it is not of service, it must do harm. Besides, the Physician is not justified in causing his patients to spend their money in what will be of no service to them, and will in conscience be obliged to repay the expence. Nor will it be of any use to him that his patients desired him to prescribe for them; for they did it under a supposition that it would be of service to them; but if he will assure them with constancy of the inutility of the medicine, they certainly would not wish to take it.

C H A P. X.

AFTER having pointed out so many heads which concur to prove the uncertainty of physic, it will naturally be asked me how it is possible that the experience and observation of so many ages has not taught us what is hurtful and what the contrary? To this I have already answered in what I have said concerning the fallibility of experience. To which I add, that the observations collected in some authors are so far from giving us information,

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that they deceive us more, and are so defective as not to merit that name. Many are founded upon one case alone, in which a person may be various ways deceived. Sometimes the insincerity of a Physician may brag of his remedies succeeding upon one patient, and pass over its having failed in two. Besides, the circumstances may not be exactly related, for there are many in the same disorder, which may render a medicine either proper or hurtful. Perhaps more remedies than one may have been given, and it may be difficult to know which performed the cure, though a Physician will always ascribe it to his favourite. If there is more than one Physician, they will always attribute the success to the remedy which they prescribed, even though the disorder did not quit its hold immediately. If we are to allow much time to the effect of any specific, the cure may, perhaps, be owing to nature alone, for we see many complaints removed without taking any thing at all.

The observations of Riberius are current every where, and are, perhaps, those which have been circulated with greatest applause. The number of them amounts to some hundreds, yet you will hardly find one which is not defective

fective in some of the above points. It is curious to see this author brag of curing a bilious cholic, cent. 4. observ. 75. with four bleedings, and four purges properly intermixed with clysters, emollient, anodyne, and other medicines, in which cure many days must necessarily be consumed, when this disorder, left to nature, or at least managed with much less physic, is generally terminated in less time. It is very probable that the patient would have recovered more speedily, if the furious proceedings of the Physician had not destroyed his strength. How often does he attribute the victory to his theriacal water, or some other medicine of his invention, though various others have been applied. Much more could I say of the uselessness of these observations, which are such only in name. The making them with advantage, requires much learning, perspicacity and sincerity, qualifications not to be found united without some difficulty. It must, however, be confessed that some modern authors have laboured in this matter with much greater care and prudence than the antient, and if their successors imitate them, physic may be much advanced, though at present extremely imperfect.

C H A P. XI.

I AM confident, that what I am now writing will not please the faculty. Indeed, I expect to bring the anger of some of them upon my head. I make no doubt but all those of little learning, and still less understanding, will attack me with violence, as they think they possess a treasure of infallible doctrine in that author whom they follow. Besides, if persons take less physic, they will send less for Physicians, and therefore some of them must be discarded. But they may be very easy upon this head, for the world will always be the same; nor can any writer turn aside the impetuous course of prejudice and universal custom. How much, and, indeed, even beyond truth, has Quevedo written against physic and Physicians in Spain; Petrarch in Italy, and first Montaigne, and afterwards Moliere, in France. Every person reads and commends their writings, but things go on in the same manner as before. I shall be contented to persuade only a few that they ruin their health by those very means they make use of to preserve it.

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There will be different opinions among Physicians of learning and discretion. Some are endued with so generous a spirit, as to publish themselves the imperfections of physic, and their own uncertainty. Others, however, of a less illustrious way of thinking, are not displeased to see that the world places more confidence in their science than it ought; and as the high estimation of a profession redounds to the honour of those who follow it, they will not be flattered with what we have said against it. This cause, perhaps, raised so many virulent pens against Dr. Boix, whose sincerity and zeal for the public good deserved a different treatment.

That some Physicians of learning politically conceal the uncertainty of their art is an undoubted fact.—Ballivio, who has lamented at full length the wretched condition in which physic was, notwithstanding, attacks more than once some authors who published its fallibility to the world. He calls them imprudent to act in this manner, as by their sincerity they sink the professors from the esteem they enjoy. Gasper de les Reyes (ques. 20.) places the danger of his profession in so very high a light that he says, there is no case in which a Physician

fician can act with certainty, which is much farther than I have gone. In another part of his work he says, that the most learned Physicians often make mistakes. However, this enlightened professor did not choose to enlighten the world in an equal degree. After telling us, that Physicians may discover their errors to the learned, as to persons who know the great obscurities and insuperable difficulties of physic, he says that they ought to conceal them from the rude and ignorant, who imagine the Doctor knows more than he really does, or is capable of being informed of. The reason he gives, is, that it is of no use, either to the Physician or the patient, that he should make a confession of his mistakes. But I, on the contrary, find much use to the patients, and not a little to the Physicians, in this disinterested information. To the patients, as being informed of the uncertainty of the science; that there is hardly a remedy without danger; that the wisest Physicians often mistake; that many who get well, owe their cure to nature, and are only indebted to the Physician for retarding her operations; they will be more cautious in taking medicines. By this they will preserve their strength entire; they will not hurt their health, or spend the money they want for their family,

family, in the Apothecary's shop. They will leave those little disorders to Nature, which she herself cures, and in which, even supposing physic to be of some assistance, the damage it causes, will, on the other hand, be more than an equivalent. They will be content with regulating their diet, or at most, with taking^a some little medicine in those disorders which belong to their constitution, which no Physician in the world can cure, however they may talk of eradicating them. By reason of this information many ladies may become less burthensome to their husbands and families; many persons may become useful to the public, who are now spending all their time in taking physic. These and many other advantages, which the knowledge of the uncertainty of the science carries along with it, have made me publish these informations, and the Physicians ought in conscience to join with me in contributing to undeceive the public.

It will even be advantageous to the Physicians themselves, at least to those of learning, as they will never want salaries and employments without they are banished from the world, as it is said they were from Rome. They will not likewise be troubled unnecessarily
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by fanciful patients, and even by people in perfect health. The vapourish lady, who now thinks she cannot live without a Doctor's feeling her pulse every instant, will not be sending for them continually, nor will hypochondriacs be teasing them, who, like him in Moliere, are crying out, though they feel no pain; and the decrepid old man will be convinced, that all the drugs in the shop cannot remove him many paces from the grave. This will give professors time to apply more to their studies, and reflect upon what they have read and experienced, as also to assist at anatomical dissections. The most eminent will be able to write useful books. By these means will they become more learned, and physic will from day to day approach to that state of perfection of which it is capable.

It must not be thought that I am an enemy to the science. On the contrary, I have a great esteem for it. I know that the Holy Ghost recommends it, though it might be replied to me, that the physic recommended in the bible is not that which is practised in our times. It is certain, that there are disorders which Nature herself cannot overcome, and yet are conquered by the assistance of a Physician, as is
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in the venereal infection. I confess, that in dangerous illnesses it is proper to recur to their assistance, and that many times the speedy effect of the medicine shews that the relief was entirely occasioned by it, as Nature left to herself rarely makes sudden changes. I allow that many wonders have been done by opium, bark, emetics, and other remedies of known activity. I am only hurt that Physicians should promise things which surpass their knowledge and power, and that, while they walk in darkness, they should boast of their being crowned with light.

If I have rather exaggerated the uncertainties of curing any disorder, this also may be right, as the common people are inclined to give a blind assent to the precepts of the most ignorant Physician, which makes it necessary to incline their minds a little on the other side, that they may remain in the due medium. Although, in this Essay, I have only spoken under the authority of illustrious authors, since what I have laid down from my own opinion is only proposed as a doubt, and not as a doctrine, yet, if any person should think proper to write against me, he will give me an opportunity of adding much that I have left out not to render this treatise too long.

I conclude, by exhorting all persons when they choose their Physician to have the following circumstances present to their mind. First of all, let him be a good Christian, as bearing before his eyes the strict account he must render to God for his neglects; he will attend with more seriousness to the performance of his duty, and will apply with more attention to the study of his profession. Secondly, let him be a person of judgment, and of a mild disposition, as a fiery temper is apt to blind the judgment of the most prudent. Thirdly, he must not boast of the certainty and greatness of the science, for as it is undoubted that there is no such certainty, he who proclaims it must either be very ignorant, or an imposter. Fourthly, let him not be addicted to any philosophical system, by which he regulates his practice, being more exposed to error than another who follows his own experience, and that of the best practical authors. Fifthly, let him not be a great prescriber of physic, especially of strong medicines, except in very urgent cases, which allow of no time, as it is certain that every one who prescribes much must be a bad Physician, even though he knew by heart all that is written about the science.

Sixthly, take care that he observes and gets exact information of all the symptoms of a disorder

order, which are many, and derived from various causes. Common Doctors, after just feeling your pulse, and looking upon the urine, take up their pen to write. The pulse gives but very dark intelligence, and the urine is still more fallible ; nor can we have a certain idea of a disorder and of its causes, except now and then, where it is very well known, without attending to many other circumstances, which precede and attend the complaint. From negligence in this point many essential errors have been committed in the naming of disorders. How many times has a pleurisy been attributed to wind, and the contrary!

Seventhly, a Physician should generally be able to foretell the events that are to follow. I say generally, because never to err in this point is the part of angels, and not of men. All my former instructions may almost be comprehended in this; and from a Physician foretelling what is to come, an illiterate person may know who is the wisest, and who is the most ignorant. The man who is true in his prognostics must know the present state of the disorder, since he can only judge of what is to happen from what he sees at present. Whoever, on the contrary, errs in making them cannot know any thing

of physick. We should not doubt of saying, that an almanac maker, who mistook the times of the full moon and eclipses, knew nothing of astronomy.

Some consider the art of curing and foretelling as different, and that one Physician may be famous in telling us what will happen in a disorder, and another for the curing of it. But it is a great mistake ; since, from what we have said, it is impossible that he who errs in the prognostics can succeed in the cure. This error must be owing to his not understanding the disorder, which he can therefore not cure unless by chance. Even if it was possible to separate these two talents, he who makes the prognostics just ought always to be preferred. The reason is strong, because by mistaking the cure, the temporal safety of the patient's body is only hazarded ; but by erring in the prognostics, the eternal salvation of their souls is oftentimes endangered. In a malignant and deceitful disorder, an ignorant Physician will often tell you that it is nothing but a light indigestion of the stomach, which will be cured with a julep. This makes both nurses and patient neglect those christian preparations, with which death ought to be expected. In the mean time a sudden

den delirium seizes upon the mansion of the brain, and he dies like a heathen, or even like a brute. How often does this happen by ignorant professors being allowed to practise physic. The crime commonly charged upon Physicians is the killing of our bodies, but sometimes they are guilty of the eternal death of our souls.

There are some, however, who, either more cautious or more deceitful, by a common artifice take exactly the contrary method. Wherever they meet with a slight fever they tell you, with wrinkled front and arched eyebrows, that the disorder is very serious. A multiplicity of orders are given, and the whole family is put into confusion. In the mean time the Physician offers to attend the patient every day, and do all that lies in the power of his art. The consequence of these previous steps is, that, if the person dies, all praise the understanding of the Doctor, who, from the very beginning, penetrated the hidden malignity of the disease ; if the patient gets well, they cry up the cure, and thank heaven for having directed them to so knowing a Physician, who was able to overcome so dangerous a complaint.

Undoubtedly Physicians of this sort will not willingly let their patients die without the sacraments

craments of the church, but they make them often die without their having a fatal disorder; for their threats falling upon low spirits, they are sunk to such a degree that the disorder, which was nothing in the beginning, becomes dangerous. This is bad, though what I mentioned in a former paragraph was worse. Remember, therefore, O, Physicians, (I speak to you, who without study embrace this profession, and visit more patients than you can possibly take care of) and bear in your minds that the guardian Angels of those whom you have attended will appear before God, and place before your view, as well those who have suffered an untimely death by your neglect, as those whose final condemnation has been sealed through your ignorance.

RULES

RULES for preserving HEALTH.

C H A P. I.

PHYSICIANS know but little of the cure of disorders, but they neither know, nor can know any thing of taking care of people who are in health, particularly with regard to the two main points, of eating and drinking. I dare say what I here lay down will scandalize both those who understand the science and those who do not ; but it is to be proved to demonstration, from the variety of our constitutions, to which we must regulate both the quantity and the quality of what we eat. That nourishment which may be wholesome to one, may be noxious to another. The quantity which may be too great for one may be little for another. This union of quantity and quality, with regard to any individual person, can only be known by experience. Of this every man bears within his

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own breast a monitor; nor can the Physician know any thing of it, but from what you tell him. What occasion therefore have I to recur to a Doctor to inform me what I ought to eat and drink, if he can only know it by my telling him what agrees with me, what I digest easily, what sets well upon my stomach, &c.

Tiberius Cæsar used to laugh at those who wanted Physicians at the age of thirty years, and said, that at this time of life every person ought to know by experience how to regulate his conduct with regard to health. In fact, this maxim succeeded well with the Emperor, for notwithstanding he lived very intemperately, he arrived to seventy-eight years of age, and perhaps might have lived longer if his successor Caligula had chosen to wait the slow hand of decay; for all historians agree that his death was accelerated, but they differ in the manner. Though this maxim of Tiberius may not be true in general, yet it is undoubtedly so with regard to what we eat and drink.

We cannot say that any kind of nourishment is absolutely noxious. This is not my opinion, but that of Hypocrates, who proves it in his book of ancient medicine. Speaking of cheese, he

he says, that if it was absolutely hurtful to mankind, it would be so for all men, and yet many eat heartily of it, and are in good health. If, therefore, cheese, which is so hard of digestion, and so full of earthy particles, even when eaten to excess is good nourishment to some persons, how can we say that any thing is absolutely bad for all.

Pliny says, that thrushes and kids eat poisonous herbs. What kills other animals fattens them. But you will reply, that amongst different animals there is a total different constitution of body, which I will grant. It is enough for me to know that there is great difference between the particulars of the human species. Schenklius, in his observations, tells us of a man who could take an ounce of jalap without being purged at all, while other authors assure us, that some experience the same effect from only smelling roses. Is not this a very remarkable difference in constitutions ?

True it is that commonly there is not so great a dissimilitude between men, but there is always some, and that very sensible. As there is not one face perfectly like that of another, so there are not two constitutions that intirely agree together. We observe a great disparity

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in all men in those accidents which are subject to our senses. What can be more simple than the sound of a voice? and yet, there is hardly a man whose tone of it resembles that of another. In a community, like ours, we soon learn to distinguish every person when they speak, without seeing them. If this happens with regard to our voice, how many different combinations must there be in our constitution, which is variable in so many different ways?

If our senses had more power, we should find men different even in the things where they seem to resemble each other. Brutes give us this piece of knowledge. We cannot distinguish by our smell the effluvia of the human body, or even, if we perceive it, we cannot discern one man from another. But the dog will distinguish all men by their smell. What a great distance will he follow his master without seeing him! and where various paths meet his scent will find out the effluvia which arises from his master, and he will follow him, though others have crossed the same road. He will even pick up a stone thrown by his master's hand amidst many others thrown at the same time by different persons, that short touch of the flesh being sufficient to mark it from all the

the rest. This is sufficient to prove the difference of constitutions, as without it there could not be such a variety in the effluvia.

C H A P. II.

BUT it is not only from the contrariety of temperament that men are incapable of judging what nourishment is most proper for others, but also from the difference there is between food itself of the same kind. All wine, for example, is of the same species, yet, some is sweet, some sour, and some rough, and the smell is as different as the taste; some is of a lighter quality, and some more substantial. There is the very same difference in all meats, as also in all plants, though we cannot perceive it so easily from the imperfection of our senses. From hence it may, and does actually happen, that one kind of wine may agree with a person and not another; that sheep nourished with certain herbs may be good food for him, and hurtful to his constitution, if fed with others.

To this we may add, that the same nourishment, without the least difference, may be useful at one time, and hurtful at another, to the same person. This may happen either from the different seasons of the year; the different temperature of the air; the different climate to which he has travelled, or the difference of his own age. Hippocrates produces all these causes in his third book concerning diet, where, though he only speaks of the impossibility of adapting the quantity of our food to that of our exercise; yet his reasons absolutely demonstrate, that it is impossible to determine the quantity and quality of nourishment for any particular person. His words are as follow:

“ It is impossible to write any thing exact concerning diet, or measure the quantity of
 “ nourishment to the exercise we take. Many
 “ are the difficulties which lie in our way.
 “ First, the different constitutions of all men.
 “ Next, the difference of their ages, which require
 “ to be treated in various manners. Besides, the
 “ different situation of countries; the changes
 “ of the winds and weather; and the seasons of
 “ the year. There is also much difference between the same kind of food, wheat is different from wheat, and wine from wine.

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If we reflect upon this passage of Hippocrates, and upon what I have before said, we shall find that established maxim very doubtful, if not false, that, to preserve our health we ought always to eat of the same kind of food. The famous Bacon is of a different opinion, and he tells us that we ought to vary both our remedies and nourishment. Hist. Natur. cent. 1. num. 69. Reason also persuades the same, for if our bodies are not always in the same habit, it will be improper to nourish them always in the same manner. If some times we abound with alkaline, and at others with acid salts, our nourishment must respectively incline more to the contraries, to correct the excess of the former.

If also, from the different seasons of the year, or from the situation we dwell in, or from the intemperance of the weather, we find it too moist or dry, too cold or hot, we must necessarily change the quality of our food, seeking in what we eat or drink the qualities contrary to those which superabound in our bodies. This is only speaking theoretically. In practice it is very difficult or impossible to ascertain what are the predominant qualities, either in our bodies, or in the food we eat; and still more so,
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what are the different degrees of them. The Physicians even differ about them in the bodies of their patients when they are more clear from the force of the disorder, and one Doctor will attribute a disease to acids, while the other lays the cause upon alkalines; and one will say it is owing to cold, while the other declares, it proceeds from heat. In practice therefore we can have no other rule, but observing by experience what it is that hurts or does us good; and what it is our stomach can digest with facility or the contrary.

C H A P. III.

EVEN if one kind of nourishment was proper for all men, and at all times, we could never know, from medical books upon diet, what this precious food is, their precepts are so contrary to each other. The preference is generally given to meat, as being more analogous to our bodies, than fish, herbs, or fruit. However, very weighty authors are not wanting, who assert, that meat is not only an enemy
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to our souls, but to our bodies. Plutarch, in his book of preserving health, says, " that the eating of flesh engenders crudities, and leaves malignant humours in the body, and that it would be better if we eat none of it." Pliny, in some parts of his works, inclines to the same opinion. The famous Physician, Sanctorius, altered the common aphorism, that all excess is bad, but that of bread the worst, by substituting meat instead of bread. Galen declares himself highly in favour of fish, and approves it as food of very good nutriment, and equal to that of mountain birds. See Paul Zaquias, in his medical questions, lib. 5. tit. 1. quæst. 2. where he joins all the authorities of Hippocrates to those of Galen, and of other illustrious Physicians, who have been of the same way of thinking. Doctor Lewis Lemery, regent to the medical faculty at Paris, in his treatise concerning diet, seems to esteem principally all kinds of plants, in consideration, that Anchorets, who lived only upon herbs and fruits, have been more robust, and of a longer life than other men. In fact, he declares that this kind of food is most easy of digestion, and produces most temperate humours. Some attribute to the use of this nutriment, the length of time the antient Christians lived in the woods.

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Ballivío observes, that meat does harm to many sick persons, and that they grow better by living upon herbs and fish. "You will observe, says he, in practice, that some patients who are troubled with fluxions and chronical disorders, get well during Lent, and again relapse at Easter, upon account of returning to meat. You will find many disorders cured by greens, herbs, and fish, which become more violent by eating food of better nourishment, *de morbor. success. cap. 9.*" Et-muler, treating of fevers in general, condemns the eating of meat as noxious to persons who labour under those disorders. "As meat, says he, is disagreeable to them, so is it also un-wholesome."

Finally, in these times a great party has been formed in favour of fish, herbs, and fruit, to the exclusion of meat, upon account of the new or revived system of the tituration of food in our stomachs. This opinion being renewed in our times from the ancient Physician, Erasistratus, and that our food is reduced to chyle, not by concoction, as some thought, nor by fermentation, as others pretended; but by the action of the muscles and fibres, which beat, pound, and titurate, as in a mortar, what we have in our stomach,

stomach, till it is reduced to a paste or cream. Mr Hecquet, a Physician of Paris, with other defenders of this system, deduce, in consequence, that as meat is more difficult to be thus perfectly reduced, upon account of the firm texture of its parts, than fish, herbs, and fruit, it is better to eat the latter, as of more easy digestion than flesh. Indeed, this reason seems to be but of little force; for the easy dissolution of food in the stomach is not sufficient to determine the goodness of it, as we must likewise take into consideration the kind of nutriture it gives to the body, which may not be so wholesome, though more easy of digestion. This, however, does not take away from the probability which these authors give to their opinion, and when united with the others we have mentioned, the case seems very doubtful what kind of nourishment is the best.

So far are we from having any fixed rule upon this subject, that those very things which are generally esteemed as most unwholesome have learned authors who speak much in their favour. Bacon produces, as food proper to lengthen life, beef, venison, and kid; and among fish, those that are salted and dry. He likewise commends old cheese. With regard

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to bread, he prefers that made with oats, barley, and millet, to wheaten bread, and, in the last, he prefers that mixed with the bran to what is pure. In *Hist. Vit. and Mort.* fol. mihi. 540. His reason is, that they give nourishment that is not so easily to be dissipated. If Bacon alone favoured this idea, his authority would give it weight; as he was the most exact and constant observer of nature we have had. Herman Boerhaave, a famous Physician, who now resides at Leyden, for the same end of prolonging life, prefers dry and salted meat, as also salted and old fish, in general, every thing that is dry, hard, and tenacious. He grounds this upon the same principles as Bacon, and says, they resist more to dissipation and putrefaction. *De Diæta ad Longœvitatem.* num. 1057.

But the greatest mistake that Physicians suffer in this matter, and the most common they fall under, is to prescribe to their patients that food which agrees best with themselves, as if their own stomachs were to give law to those of other persons. He who loves wine would render all those whom he attends drunkards. On the contrary, he who drinks only water, recommends nothing but that element to those whom he visits. Mr. Duncan, a Physician of Montpellier,

pellier, says, you may know what the Doctor loves, from what he prescribes. He relates a story of two famous Physicians in France, one of whom always recommended coffee to his patients, which the other forbid them to drink in the most rigorous manner.

What party are we to follow in this great opposition of opinions? Let us follow none, but each attend to his own experience. Let us observe with care what it is fits well upon our stomachs, and what is digested without difficulty, in which we must attend to the digestion not being too quick, as in some aliments, from their resemblance to chyle, the quickness of their reduction may give some doubt of their corrupting. Let us, therefore, observe, that they bring no disagreeable change in our bodies, in any of the qualities that are subject to our senses.

C H A P. IV.

BESIDES the knowledge which experience gives, our taste and smell are generally faithful explorers of the usefulness or im-

propriety of what we take; as Francis Bayle says, in his philosophical course, these two porters of the mansion of the soul rarely deceive us in the information they give of the amity or hostility of the guest who demands admittance. I agree with Father Malbranche, that we had better govern ourselves by our own senses, in the preservation of our health, than by all the laws of physic. (*de inquir. verit. in concl. trium. prim. lib.*) The taste, particularly, has been appointed by nature for this end. Etmuler, with the greatest generality, assures us, (*Inst. Medic. 1. part. cap. 3.*) that we always digest well what we desire with eagerness, even though the desire arises from a disorder. He says, that women who suffer that depraved appetite, called the green sickness, can without inconvenience digest earth, chalk, and ashes, merely because they so eagerly desire them; notwithstanding the substances are so contrary to our nature. A strong desire, therefore, is a sign that the stomach has within it some ferment proper to dissolve the matter for which it so eagerly wishes. We have seen the same author say above, that meat was hurtful in fevers, merely because it was disagreeable to the palate of the patients.

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However, I cannot approve this rule, taken in so very great generality, and without any exceptions. If our desires arise from the cause of a disorder, what we take may be easily digested, and still be noxious; for, as the cause of our desire is preternatural, the food which agrees with it may not be natural to our bodies. Secondly, we ought always to be cautious of food of a high taste; as what is extremely sour, rough, biting, sweet, &c. till experience has fully proved that it does us no harm. Those also that exceed very much in the two qualities of heat and cold ought to be used with caution, except in particular constitutions, which may demand the assistance of either of the two extremes. However, I believe there are no habits of body which can always require nourishment of this kind, and therefore, Hippocrates absolutely condemns them as contrary to our nature. We ought, thirdly, to observe whether the desire does not arise from a bad custom, as then what we wish for may be hurtful. This happens with drunkards, though wine undoubtedly does not do them so much harm as it would to persons who are not accustomed to it. If, as we grow older, we still desire a greater quantity of the food that pleases us, we may hold it as a general rule that, in this

this case we ought not to trust or follow our appetite. I omit the physical reasons for these exceptions, not to be too long, and because experience, which outweighs every thing that can be said, authorises them.

It is my opinion, therefore, that under these regulations, we may and ought to follow the will of our appetite in the choice of what we eat and drink. Certain it is, that nature has made a union between our palate and our stomach, consonant to the habit of our bodies, and that, what is agreeable to the one, will be amicable to the other. The Almighty has given us senses to be as watchmen for our preservation, and that of taste alone will inform us what is conformable to our present constitution or otherwise. Experience shews, that the stomach never embraces with affection what the palate receives with disgust. If, however, this maxim should seem too general to any of my readers, let them follow that of Hippocrates, which is not very different, and who says, in his aphorisms, that we ought to prefer that food and drink which is most agreeable, though of a less wholesome quality, to what would seem better, but is more displeasing to us. Sect. 2. Aphorism 38. If any person receives

ceives harm from following this rule, I will confess myself guilty of it in his presence.

But in all cases, either when you are well or indisposed, never force into your stomach what you have an absolute repugnance to. Many Physicians fail in this, and almost all those who assist sick persons, and especially if they are women, whose compassionate disposition makes them quite obstinate upon this head, thinking they do much good to the patient by sending into his stomach a disagreeable guest.

C H A P. V.

W I T H regard to changing or not changing our nourishment, I cannot approve the extremes either way, though both have their defenders. The rule of Celsus to accustom yourself to eat like the generality of people, lib. 1. cap. 1. seems to me very reasonable, except there is some contrary habit formed. It is a part of good education, though many rich persons fail in it, to make their children from time to time eat of every thing; that
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if by the loss of their fortune, or their situation in life, or going into foreign countries, and other accidents, they are obliged to use different nourishment from that with which they were brought up, they may not suffer from the change of body occasioned by so great a novelty. In old people, however, it is dangerous to alter the food which they have used all their lives, even though the change is made by degrees. A middle aged person, however, ought to vary his diet whenever it becomes disagreeable to him, and sometimes even though it does not, to avoid those inconveniences which arise from the being scrupulously tied down to the same kind of food.

Very little harm can result from persons of strong constitutions eating or drinking now and then of high tasted things, so they correct the excess by something contrary. For example, if you eat or drink what is of a very hot nature, you will counterbalance it by cool things in the next meal, and the contrary. Nature herself calls out for this by the voice of appetite. He who has drunk too much wine the preceding evening, will eagerly desire water to qualify it? He who has eat an unusual quantity of fruit or salad, will, in a few hours, be told by his appetite,

tite that he must drink a glass of generous wine, or something of a hot nature.

C H A P. VI.

WE have hitherto been treating of the quality of what we eat and drink. We must now treat a little of the quantity. There is a very common error introduced upon this subject, which is, that we can hardly eat too little. Both learned and unlearned join in crying out, that the more we confine the quantity within the rules of possibility, the better it is for our healths : and many understand nothing else by the word diet, than reducing our nourishment as much as we can. The noble Venetian, Lewis Cornaro, being troubled in his youth by various disorders, reduced himself to the narrow allowance of only eating twelve ounces weight, and drinking fourteen every day. By these means he not only perfectly recovered from all his infirmities, but lived to more than one hundred years. When he was very old he wrote a book, in which he persuades all persons to lead a sober life from his example ; and though his work reduced but few to

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such austeriſy, it made almoſt all believe that his rules were neceſſary for lengthening our life and preſerving our health. But this confequence is deduced without any reaſon ; for God did not create Lewis Cornaro to be a rule for all mankind in what they eat or drink, nor is there any perſon in the world who can poſſibly be ſuch. The learned Jeſuit, Leonard Leſio, who tranſlated the treatiſe of Cornaro from Italian into Latin, was ſo ſtrongly perſuaded by it that he bound himſelf under the ſame reſtrictions. He, however, lived only to the age of ſeventy-nine, and that with many diſorders which he laboured under. To one man, like Cornaro, who lived an hundred years with ſuch ſtrict diet, we may oppoſe a large number of others, who have lived much longer without all theſe ſcruples. His conſtitution required ſuch abſtinance, which few others might be able to bear. Nor is it abſolutely certain that he owed the cure of his diſorders to his diet, as Nature herſelf might have carried them off, as there are many which belong only to youth, and ſubſide as we grow older. Cornara himſelf renders this probable when he confeſſes that he was of a fiery temper, and much addicted to anger.—As his indiſpoſitions might ariſe from this cauſe, it is more natural that the fire decreaſed through age, than his ſtreight diet, which all Phyſicians ſay

say is not proper for those of a bilious habit of body.

Hippocrates, so far from approving great abstinence, says, it is hurtful, in his Book of Ancient Medicine. He tells us, that the defect of food does us no less harm than the excess of it. Hunger, continues that author, has great power upon the human frame, either in curing its disorders, or weakening and destroying it. The evils which arise from too great abstinence are different, but not less serious than those which arise from too great repletion. In his aphorisms he is not content with what he here lays down, but says, the defect of food is more dangerous than the excess, even with respect to persons who are indisposed. These are his words :—
 “ We commit a greater error in too rigorous a
 “ diet, than in exceeding something more than
 “ we ought. This makes abstinence even dan-
 “ gerous to persons in health ; for, as it weak-
 “ ens their strength, they cannot resist the at-
 “ tacks that may happen to them. Therefore the
 “ confining yourself to a very streight diet
 “ is more dangerous than passing a little the
 “ bounds of what is necessary.”—Sect. 1. No.
 5. That the eating too little is hurtful, as
 well as eating too much, is likewise proved
 by the reason which Hippocrates gives in ano-
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ther place. "Neither excess, says he, nor hunger, nor any thing else that passes the bounds of nature, can be good to man."—Sect. 2. Aphor. 4. Certain it is, that every thing violent is an enemy to nature ; and it is as certain that hunger and thirst are a violence to her. If they produce no other harm, the pain and affliction of spirit which they occasion would be sufficient. None of us are ignorant how much serenity and quiet of mind are necessary to preserve health, and how much pain and anxiety destroy it, in proportion to its oppression. How much detriment must it cause our health, to be every day fighting with our appetite ? To let our imagination carry us to purling streams, while our palate is fighting for a little moisture ? To leave the coats of our stomach a prey to an acrimonious humour, the voracity of which Nature intended should be employed upon our food ?

C H A P. VII.

ARE we then to eat and drink just as much as we please ? No, certainly, there ought to be some little restraint upon the appetite.

tite. The rule of Galen, to get up from table with still a little desire for eating, seems entirely agreeable to reason. There ought to be some little room left in the stomach, and some little appetite yet remaining, not enough to give us any pain or inconveniency, but sufficient to leave free the operations of our body and of our mind. This is the true signal that we have committed no excess. He who after his meals feels the use of his limbs, faculties, and senses, equally unembarrassed as before he sat down to table, can never have passed the bounds of what is right. But the contrary may be said of him who feels any of his faculties benumbed.

Celsus, however, is more complaisant, as he prescribes at times that we should exceed a little in our diet, and always that we should make the stomach digest as much as it can.—He advises us to eat sometimes much and sometimes little, but divide our nourishment into two meals a-day, when we ought always to eat as much as we can, so the stomach does but digest it.—Lib. 1. chap. 1. But the rule of eating as much as we can, seems to me doubtful. The stretching any power to its utmost extent, weakens it. If the stomach is every day obliged to do as much as it can, it will
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every day be able to do less. A wise traveller will never force his horse to perform as much as he can in one day, upon a long journey.— Besides, it is difficult to know how far the powers of the stomach extend ; and it is, therefore, more secure to hold a little the reins of it. Had the state of innocence continued, the rule of our appetite would have been exactly just, as it never would have exceeded the bounds of reason : But things are now entirely changed, and prudence must, therefore, assign some limitations to it.

Those who advise us now-and-then to exceed a little, seem to me to have reason on their side, not to tie down the body always to the same rule ; but then, in our succeeding meals, we must retrench what we have exceeded. In all cases, we ought never to proceed to a fresh repletion, 'till our stomach is entirely eased from our former, and our appetite sufficiently raised. When we are going to use any great exercise, or think that from travelling, or any other cause, we shall be disappointed in the succeeding meal, at the hour we used to take it, there can be no harm in fortifying the stomach, by giving it more nourishment than ordinary.— Exercise and bodily labour is to be greatly regarded,

garded, as it demands more food, by its dissipating so much.

The rules that I have given must be understood concerning persons of a strong constitution ; but those who abound in excrementary humours as those of saliva or phlegm, ought to hold the reins straighter upon their appetite.— True it is, that they generally eat little ; and, therefore, taking away a little from that, according to the rule which we gave of Galen, their nourishment will remain in proportion to their vicious habit of body. However, some of these are a little inclined to gluttony, which perhaps is derived from their very disorders, as it destroys the harmony which Nature has placed between the voice of our appetite, and the food which is necessary for us. In this case, they ought to be very sparing, and suffer actual hunger and thirst, which penance, however, will not last long, as abstinence will consume those humours which irritated the appetite.

With regard to the dividing our meals between dinner and supper, Physicians dispute concerning which is the most wholesome.— Some say we should eat most at dinner, and others most at supper. Both parties have their reasons. The first, however, seems to be the most agreeable

agreeable to common usage. My rule is, that every person should follow what agrees with him best, as the most secure method. Indeed, with regard to eating and drinking, let our own experience be our guide in every thing, as we ought never to lose sight of it.

C H A P. VIII.

WHAT we have said here with regard to diet, is to be understood of all other things else which can form a regimen of life; as sleep, exercise, air, &c. In all it is an error to follow the opinion of the Physician, against our own experience. Our exercise ought to be moderate; but we can only judge of this moderation by our own strength and the nourishment we take. If we exceed in our food, so much we ought to exceed in our exercise. He who can use but little exercise, from his employments or profession, ought to make use of some of a violent nature, that the intenseness of it may make up for the shortness of its duration.

It is difficult in sleep to commit any excess. Nature, delivered to herself, will prescribe the
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time proper for every person. With regard to sleeping after dinner, many Physicians are against it, and say it produces colds and fluxions. But I have seen many persons in perfect good health, who have always slept an hour or two in the afternoon. Most of the religious orders follow this practice, and I do not see they are in worse health than laymen. Often when I travelled in the summer time, and got up early to avoid the heat of the sun, I have slept two or three hours after dinner, without perceiving the least hurt. Many will tell me, they always feel a head-ach by doing it ; but our experience deceives us in this point, as in many others, by taking for the cause what is only the effect. The head-ach does not arise from sleeping too much, but the sleeping too much arises from the head ach.—The heavy weight of vapours upon the fibres of the brain causes a deep sleep, and the oppression continues after we are awake, 'till the head becomes clear by little and little. This is proved from our heads not aching by sleeping after dinner, to make up some deficiency in our nocturnal repose, which if it caused that disorder upon account of the time, would undoubtedly produce it in the present case. Secondly, when we have much inclination to sleep in the middle of the day, even if we resist it, we shall

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still suffer the head-ach, as I have many times experienced.

C H A P. IX.

THE air which we breath, or the country we inhabit, has much influence to the detriment or advantage of our health. The knowledge we gain also, in this respect, is obtained by experience, for the physical rules, which are generally given, are very uncertain. Almost all condemn moist countries as unwholesome, but they are deceived. The whole principality of Asturias is very moist, and yet people live longer there than in Castile, and not only upon the mountains but in the valleys. All islands are more humid than the continent, as the sea loads their atmosphere with vapours on all sides. Notwithstanding this, Bacon observes, that islanders generally live longer than the inhabitants of dryer regions. Those who dwell in the Orcades, (islands to the north of Scotland) though very intemperate, and ignorant of any remedies, live longer than the Russians

fians who are placed in the same latitude. In the Canary and Azores islands, men live longer than in that part of Africa which is under the same parallel. The same in Japan, in comparison with China, though the latter have applied with much industry to physic. There is no province, either in America or Africa, where so much health is enjoyed as in the delicious island of Ceylon. It is said that countries abounding in timber are unwholesome, but the island of Ceylon is almost covered with forests.

From hence we may collect, that neither the dryness of a country, nor the apparent purity of its air, can be a total security to us of the goodness of the climate. The temperature of that of Madrid is commended throughout all Spain, and the fineness of its atmosphere dissipates all bad smells—Even the dogs and cats thrown in the streets dry up without molesting the passenger. But Bayle, in his Philosophical Lectures, tom 1. fol. mihi 502, infers from hence, that the climate of Madrid is bad, attributing this effect to the many volatile sharp or alkaline salts, which impregnate the air, and cause too great a thinness of blood, and those other disorders which are suffered by the

inhabitants. He adds, that the custom of leaving animals unburied about the town, though thought to be wholesome by our physicians, as thickening the air by their effluvia, yet in reality is hurtful, as increasing the saline particles with which it is pregnant. Be this philosophy true or not, for all philosophize as they please, the fact is, that in Madrid people do not live so long as in countries where the air is much less pure. The population of that city is little less in number than that of the whole principality of Asturias. It is, however, a certain fact, that you will find twice the number of persons of 80, 90, and 100 years old in the Asturias, than in Madrid. It is, therefore, undoubted, that the apparent purity of the air does not prove the wholesomeness of the climate. I say the apparent purity of the air, which consists in its being free from vapours, or other sensible exhalations, as the atmosphere may be corrupted by other insensible corpuscles, notwithstanding the sky ever appears serene to the highest degree. This is often observed in epidemical disorders, which depend, without doubt, upon the infection of the air. While the plague reigns in a country for years, especially in those which are under a serene climate, many are the days which must be
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without a cloud, and yet the infection still continues, and commonly most in summer, when the heavens are most transparent.

Sydenham observed many epidemical years without the least difference in the air, as far as our senses could judge. He likewise observed some years, which entirely resembled those in which epidemical disorders prevailed, without his being able to fix any rule why they raged or not. This celebrated Physician, therefore, in many parts of his work tells us, that the wholesomeness of seasons does not in the least depend upon any qualities that are subject to our senses. Speaking of the plague at London, in the years 1665 and 1666, he declares, that it is impossible to know the quality and intemperature of the air which rendered it so unwholesome, and laughs at the arrogance of those, who presume to find physical reasons for this and many other natural effects.

From hence we may infer, that experience alone can shew what country is wholesome, and what otherwise. The same happens with regard to climate as to food, that there is hardly any so good as to agree with every person, or any so bad that no one can thrive in it. The same
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may also be said of the choice of situations in the same country, or apartments in the same house, though I do not deny that, in general, standing waters, and marshy grounds, full of vapours, are noxious. Observation has proved to me, that there is great difference between that humidity which reeks out of the earth, or what is brought to us in mists or clouds from some distance. The first is generally unwholesome; the second we see is not so in many places. Perhaps the agitation of the air purifies the vapour, and makes it quit those corpuscles which render it infectious.

Misty weather does not in all countries affect our heads. Where it has this power, I am persuaded, it does not arise from the fog itself, but from some subtle malignant particles mixed with it. What seems to me a proof of this, is, that though you shut your doors and windows, so that no moisture can enter the room, you feel as great an oppression as if you were exposed to the air, which I have experienced many times. The same may be said of those winds which trouble some countries, as the South and East wind, for we perceive the same indisposition, though shut up in a room, as if we were walking in a desert. This makes
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me think that the harm is caused by some particles, perhaps, of a mineral nature, mixed with the air, whose extreme subtlety defies all precautions to exclude them.

C H A P. X.

I SHALL conclude this essay with some general observations, which contradict certain vulgar mistakes in regulating ourselves, but which are so strongly introduced, that we may call them popular errors.

Some adapt their way of life to that of a person, who, regulating himself in a particular manner, lived a long time with uninterrupted health. But this is a mistake.—First, because we have already proved, that what is good for one may be noxious to another. Secondly, because, in whatever manner we regulate our conduct, some will live more and others less. Many have lived to a great age without tasting wine all their lives, and others without almost tasting water.—Some by eating the same food
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with great temperance; others though they have eat of every thing without restriction. Some making use of hot, and others of cooling things. The deceased Marquis of Mancera lived almost all his life upon chocolate, and did not even leave it off during a fever—yet he arrived at the age of 108 years. If others should follow his example, they might kill themselves before they were forty, at least there are few people with whom this mode of life would agree.

Our practice in placing beds in the most retired part of a room, that they may be defended from the wind, is wrong, if precaution be not taken that they may, from time to time, be ventilated. Stagnant air is as noxious as stagnant water. This may be known from the bad smell which it exhales, whenever we open any magazine or chamber that has been long shut up. The plague, which desolated the army of antient Gauls, was occasioned from their opening a large chest at the Temple of Delphos, which had been locked up from time immemorial, and where they thought to find great riches. The Gentiles attributed this scourge to the vengeance of Apollo, against the violators of his temple. But reason persuades us, that air
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confined for ages without the least vent might acquire a high degree of putrefaction, capable of affecting all the atmosphere around with its malignant effluvia. We may, perhaps, attribute to the same cause the sudden deaths of some miners, when they break open any hollow in the bowels of the earth, rather than to the vapours of arsenic, of which mineral no traces have been found in some parts where these misfortunes have happened. Air, therefore, confined in a chamber must be unwholesome, and still more so, from having imbibed the effluvia which evaporate from our bodies. Every place, therefore, where there is a bed ought to have two opposite windows, to be opened when the weather is fine, though, afterwards, they may be shut as close as you please.

It is reckoned neat to put the bed in order as soon as you have got out of it, but on the contrary, the cloaths ought to be thrown open; and the sheets exposed to the air, that any noxious vapours may be exhaled, before they are condensed by the cold.

We are all persuaded of the usefulness there is in being cleanly in our dress, especially in our linen, which is in immediate contact with

our body, and the barbarous practice of keeping on the same shirt in a disorder is now totally banished. A precaution is however taken in this case, which, though esteemed good, is noxious. We give the shirt to another person to put on till all moisture is dried out of it, as thinking the human heat better adapted to a sick man than what the sun or fire can communicate. I must confess, this is a very particular doctrine. In good philosophy heat can have no essential difference, and will always produce the same effects in proportion to its intenseness. The warmth of the sun or the fire must have just the same force as that of the human body. Any particular virtue attributed to the native heat of living persons must depend entirely upon the concurrence of other different circumstances; and those who say that our food is digested by the natural heat of the stomach must mean something more than mere warmth. Even though the heat of the stomach could perform this operation by itself alone, it does not from thence follow, it is different from that of the sun, or of fire; the reason is, that it can only perform the dissolution by exciting a fermentation, which is common to all. Even in inanimate substances, warmth promotes fermentation, as by the use of it we

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can ripen fruits before their time, and supply by art the deficiency of the sun. As, therefore, all heat is the same, it can be of no use to the sick person that the shirt should be warmed by being put on the back of another. On the contrary, some damage may be caused by its having imbibed a small quantity of the excrementitious exhalations of another body. It will, therefore, be better to air the linen at the fire or the sun, giving it that degree of heat which the human body has in its natural state.

Some use the same quantity of clothes all the year round, both upon their beds and about their persons. But this is wrong, for we ought to lighten or increase our cloathing according to the degrees of heat and cold. The quantity of covering which shelters us in winter stifles us in summer. Bacon says that too much cloathing weakens the body, in *Hist. Vitæ & Mortis*. When the heat of summer relaxes our bodies, why are we to increase our sufferings by loading ourselves with cloaths. True it is, the Castilian proverb says, "if you wish to live well in health, wear the same cloaths both winter and summer:" but I never was of opinion that proverbs were undoubted truths, and a writer against common errors

ought not to give ear to them. However, for persons who venerate these sayings, I will add a new interpretation of that which I have mentioned, and which I made use of to my master, during my noviciate, when he accused me of being too lightly dressed in a hot summer's day. I told him that the proverb was entirely on my side, as it meant that we should be more coolly cloathed in summer than in winter. Upon his asking me how that could possibly be, I told him that the cloaths which we had worn all winter, must be necessarily wore threadbare and lighter than they were at the beginning of it; which I thought the true sense of wearing the same cloaths. Nor is it of any force to me that many persons have been in perfect health that have sweltered themselves with covering during the whole summer. These men, who go on in the same method without regarding climates or seasons, are generally of a constitution made of brass, to which iron rules may correspond. Any manner of life they follow they will always be in health, for their native strength bears down any impediment. As persons of this robust constitution are generally not the most addicted to reflection, no man would be able to persuade them to try whether they would not be in still better

better health by a contrary proceeding. However, I cannot blame them if they receive no inconvenience from the practice which they follow, though I doubt they must suffer a little from the summer's sun striking upon their full cloathing. What I have here said ought to be understood with some restriction in those countries where the climate is extremely changeable, or where any high mountain raises sudden storms in the midst of summer.

It is reckoned extremely unwholesome to have your chamber window open during the extreme heats of summer nights. I have often done it, as well as many others, without experiencing the least detriment, though the weather was excessively sultry. This, however, cannot be done in the climates we have just spoken of, and which are subject to sudden colds, without the window should be sheltered from that part where the mountain or other cause of these great changes are situated. In the towns where they throw all their excrements into the street it will also be proper to keep the windows shut.

The water which we drink is a very principal consideration in the government of our health.

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The common probable signs of good water are, that it should want all kinds of taste; that it should be clear as chrystal, and light; that it should be quickly heated and cooled, and boil expeditiously whatever it is applied to. But that the springs should rise towards the east, is a vulgar error that is often falsified. The city of Oviedo, from whence I write this, is full of fountains, but the three best of them rise from the west. If we consult our own reason we shall soon find there can be no reliance upon this mark.

The weighing of water can be of no use to shew that it is good. That which is heaviest in the balance may be lightest upon the stomach, upon account of the greater dissolubility of its parts, which adapts it better to pass through the bowels. The lightness may, also, depend upon a quantity of air being mixed with it, in which case it will certainly not be the more wholesome. The lightest food is not always the most easy of digestion; fat is certainly not so heavy as meat, and yet we see it lies heavier upon the stomach. It will be better, therefore, to judge of the lightness of the water by its effects than by the scales.

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Some experiments I have made have confirmed me in this doctrine.

Another common error I have met with, is, that water or any other liquor which has been artificially frozen, is hurtful to drink when it is dissolved again. They say it is dead, but I do not know what is meant by this expression: If by dead they mean corrupted, they are in the wrong; the corruption of any liquor is easily perceivable, but water that has been frozen suffers no change, except, perhaps, a little taste from the vessel, which it would have got if it had stood in it without being surrounded with ice. If frozen in a glass it will neither change its color, taste, or smell. Perhaps this error is derived from observing what passes in all compounded liquors. But this change will happen after some time whether you freeze them or not, upon account of the fermentation of their heterogeneous particles. Try the experiment with a little orgeat, and you will see. The water of rivers that have a long course must be a hundred times cooled in the night, and a hundred times heated by the mid-day sun, without losing the least of their wholesome quality. Even that which has been frozen in winter time, is drunk with the
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same effect, after it has been melted, as it was before. Wine in passing over high mountains is much cooled, and afterwards equally heated in its passage through the valleys, without losing the least of its qualities. To this argument, some of those who pass for philosophers have answered, only to shew their learning in all the jargon of the schools. They tell us, that the cold, in the examples I have produced, is natural, but violent when I talk of freezing water with ice or snow. But this is speaking without reflection, and, perhaps, without understanding what they say. If the freezing water with ice or snow is violent, the freezing of it in a river by the coldness of the atmosphere must be equally so, as the agent is the same; that is the nitre incorporated in the snow, or dispersed in the air. When wine is carried over high mountains the snow which covers the ground is the mediate cause of its coolness, and the surrounding frozen atmosphere the immediate agent; just as in a vessel, the snow cools the parts of it which touch the liquor. Fountains and rivers, which descend from high mountains, spring in general from melted snow, which has penetrated into the entrails of the earth, without our distinguishing any malignant quality in them when their waters become

become warm in their course through the valleys. To say that the freezing of one is natural, and the other artificial, is not to the purpose; for nothing is artificial but the application of the snow, which can have no malignant influence upon the liquor. But even supposing this coldness is a violence offered to the state of the water, the boiling of it is a much greater, and yet it will never corrupt, so it is boiled alone. I, in my younger years, have often drunk water which had been frozen, but again melted, without receiving the least detriment.

I shall omit other observations with regard to regimen, as, to say all I could upon the subject, I must write an entire volume. I conclude, therefore, with again desiring my readers to be governed by their own experience, in every thing which regards their manner of life. Let them take care, however, to understand that experience well; for many derive very false conclusions from what they observe, and even take what is only an effect for the cause, as I shewed when I spake of sleeping after dinner; or taking for the cause what is neither cause nor effect, but, merely an attendant upon some particular action: this is the most common

mon error of all. As soon as we perceive any disorder, we immediately lay the blame upon something we have done, or upon something we have eat or drunk, though never so trifling. We ought to see whether by repeating the same action the same effect follows; if not, the concurrence will be casual, and not occasioned by what we have done. If we give due attention to what I here remark, we have no occasion to ask a Physican when we are well, though of a weak constitution, what or how much we are to eat or drink, or when or in what manner we are to use exercise, &c. Many are so superstitious that they would upon no account pass the Doctor's orders, though famishing with hunger and dying with thirst; and there are physicians who determine every thing with such exactness as if they had weighed the powers of our stomach in a balance. A patient was ordered to take a certain number of turns in his room, but forgetting whether it was to be the length or the breadth of it, he sent for more particular instructions to his Doctor's house. I am no enemy, however, to general advice, and even sometimes a little particularized, when a physician, by long experience, has gained a perfect knowledge of the food of a country,

country, and of the constitution of the patient who consults him.

Although the common opinion, that application to study is prejudicial to health, belongs to this essay, yet as it is a subject that requires a longer discussion, I shall place it apart by itself.

ENCOURAGEMENT
FOR THE
PROFESSORS OF LETTERS.

C H A P. I.

AS a counterbalance to those attractive charms of learning, which so captivate us, when the love of science has inflamed the bosoms of the studious, the universal idea has been introduced, that the application to letters shortens the term of life. A terrible deduction from the delight of it, were the position true ! What would it import that the learned should be as superior to the ignorant as the human soul is to that of brutes ?—What would it signify, that an enlightened understanding is as different from one that remains uncultivated, as the cut diamond in a jewel to
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that which lies buried in the mine?—if every step we take towards advancing our knowledge only leads us precipitately to the grave. Seneca equalled wise men to the gods; but if they perish sooner than others, they are more widely different from the divinity, one of whose principal attributes is immortality. Virtue, the supreme ornament of our souls, is the legitimate offspring of science, as Horace says, *Virtutem doctrina parit*; but how many would exclaim with Brutus, at the time of his death, O, unhappy virtue! if this very light, which crowns our brows with rays, is only a consuming fire that reduces us to ashes. The honour which inseparably accompanies knowledge will but lightly stimulate the application of persons, who judge that the more they rise in the applause of the world, the quicker they descend towards the gloom of the sepulchre.

I say again it is a terrible deduction, were it true; a horrid phantom, which lying athwart the portal of Wisdom's palace, would detain from entering, those who are most enamoured of her charms. He, therefore, will do much service to the republic of letters, who can banish this unjust idea from the world. The Stoics attempted to destroy the force of it, by telling
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us that life and death were indifferent in themselves, and that we ought to have no choice in either; but they were so far from persuading other men of this doctrine, that I am in doubt whether they believed it themselves, and that, as Claudian says,

—Munere carior omnia

Adstringit sua quemque salus.

The only method of taking away this impediment to the pursuit of letters, is to prove that honourable occupation not to be contrary to life. I know I am going to fight the world, for all are of a contrary opinion. I will attempt, however, to ease learning from this burthen, and demonstrate the common opinion to be a general error originated from want of reflection.

C H A P. II.

THE great foundation of my thinking in this manner is experience, to which if due attention had been paid, the contrary opinion would not have gained such ground. I
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only beg any person who entertains this idea to consider whether the studious persons he has known have died more immaturally than other men. To make the comparison exact, we must consider the universities and colleges, where learned men are assembled, and compare them with an equal number of persons occupied in other employments, and even without any occupation at all. You will find the number of those who arrive to old age pretty equal. This I can assure to be a fact, as I made the calculation with all possible exactness. There is no university where four or five, out of thirty or forty, have not passed the age of seventy years. The same is observed of those who follow the courts of justice. We shall not find a greater number of that age among those who pass their lives free from every care. The force of this argument will be seen more strongly by considering religious orders, where the comparison is easily made. We shall find a greater, or at least an equal number of old men among those who are occupied in study, as among those who are destined to the service of the choir, or the management of the convent's estates. If you will make this comparison, you will find I am not mistaken.

Lucian

Lucian, treating of persons of long life, gives a list of those who applied to letters in ancient times, and arrived to a great age. Among the famous philosophers alone he reckons eighteen who passed eighty years, among whom are some who attained even the age of ninety. Solon, Thales of Milefium, and Pittacus, who were reckoned among the seven wise men of Greece, arrived each to the age of one hundred years. Zeno, prince of the Stoic sect, was ninety-eight. Democritus one hundred and four. Zenophilus, the Pythagorean, one hundred and five. The same author, Lucian, brings another long list of historians and poets. He also observes, that persons who follow literature have lived longer than others in all countries, upon account of the greater care they take in their diet; and he cites for example the sacred writers among the Egyptians; the interpreters of their fables among the Assyrians and Arabians; the Brachmans in India; and in general all those who have followed philosophy with application.

Though Lucian attributes the long life of persons addicted to letters to their regimen, yet it does not weaken our present reasoning. For if study was to shorten our lives, as is the
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general notion, the most that diet could do, would be to make us live as long as other men; but we do not here see an equality alone, but that they live longer.—Besides, as most learned persons are temperate in all things, it may be considered as a consequence of literature.

C H A P. III.

THIS is further confirmed by the example of the most studious men in our times. Cardinal Henry Norris, of the order of Augustines, may be reckoned among this number, who is said to have studied fourteen hours every day before his elevation to that dignity. The famous Caramuel is also of this number, who says of himself, in his prologue to his fundamental theology, that he dedicated the same number of hours every day to the pursuit of learning. The famous Benedictine monk, John de Mabilion, is also one of this list, known and venerated through the world for his many and excellent works. Likewise the indefatigable Frenchman, Anthony Arnald, whose blameable

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ardor for Jansenism does not take away the wonder of his having written more than one hundred and thirty volumes. Also the laborious Dominican frier, Natal Alexander, in whose immense works, though the material quantity is great, the erudition is still greater. Also the two great Jesuit writers, Father Athanasius Kircher, and Father Daniel Papebroche. Likewise the learned son of the great Basil, our countryman, Father Michael Perez, a living library, and the oracle of the university of Salamanca. All these persons, whose lives were a continual study extended beyond the common bounds their well employed years. Henry of Norris lived to the age of 73. Caramuel to that of 78. Mabilion to 75. Anthony Arnald to 82. I do not know exactly the age of Natal Alexander, but that he lived a great while is undoubted; for he was born in the year 39 of the last century, and a few years ago I heard he was still living, but entirely blind. In the historical dictionary printed in the year 1718, though it speaks largely of Natal Alexander, it says nothing of his death, from whence I judge he was still living, as that book generally mentions the death of those persons concerning whom it speaks. As

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to Father Perez I am credibly informed that he is now 90 years old.

We may add to these the example of William Postel, a native of Normandy, as being a person of much celebrity, though not so modern as the others. He was a great traveller, and closely addicted to his studies, though unhappy in having left marks in his works, not only of having abandoned the catholic religion, but even christianity itself. Some consider him as the first chief of the deists. Bacon says of him, that he lived to the age of 120 years; other authors, however, have asserted, that he did not arrive to a hundred; and the last edition of the dictionary of Moreri gives him only 75. The age therefore of this learned man must remain in doubt; but the examples we have brought are sufficient to prove experimentally that study is not at variance with long life.

C H A P. IV.

REASON also supports experiment. Study, when it suits with our genius, and is not pursued with extreme rigor, rather

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pleases than fatigues us. It cannot, therefore, be contrary to nature, or prejudicial to our health. I have put the two limitations of being agreeable to our genius, and not too rigorous, because every occupation is hurtful, which exceeds our strength, or contradicts our inclination. What can be more agreeable than being in company with the most learned men of past ages, which is enjoyed by reading their books. If a clever man can so much entertain us by his conversation, how much more can so many excellent authors do it, whom we meet with in a library. What charms are there in tracing the history of all ages, the geography of all regions, and the astronomy of all the heavens! Infinite is the satisfaction of the philosopher in his pursuit of fugitive nature! How superabundant the extacy of the divine, who traces through the glass of revelation the mysteries of grace! Though it is certain that upon many subjects we cannot discover the springs upon which they hang, or ascertain their truth; yet, the understanding is carried on with a pleasing desire of following those subtle reasonings, by which so many persons of sublime talents have carried on their researches. This advantage is particularly to be enjoyed in the study of mathematics; the application to which
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always increases the empire of truth. From hence arises that extacy which seizes upon those who follow these pursuits. Archimedes was drawing geometrical figures upon paper, while the enemy was spreading fire and slaughter through his native country, Syracuse. The Frenchman, Francisco Vieta, inventor of the specious algebra, often remained three days and nights without eating or drinking, absorbed in his mathematical investigations. Let any person tell me if there is any other pleasure in the world which can so far ravish its votaries.

Those who follow dry studies for the instruction of others must tread more thorny paths. But even this arid field, when fertilized by their toils, produces beautiful flowers. Every new thought which strikes them is an object of triumph to the imagination. The progeny of the mind is contrary to that of nature. Its conception is toilsome, but its birth pleasing. The happiness of authors consists in their thinking that what strikes them must please the rest of the world, whether their works are read in a book, or heard from a chair or pulpit. In every stroke of their pen, they admire a happy offspring of their understanding, which makes them disregard the pains they took in the creation of it.

Ovid's

Ovid's friend, therefore, gave him wise counsel, to alleviate his misfortunes by study.

Scribis ut oblectem studio lachrymabile tempus.

This is the greatest of diversions, and which every person has in his power. I must confess, however, that there is great difference between voluntary study, and that which is forced upon us. One is always agreeable, but the other has something in it which fatigues; as when we are obliged to oppose a thesis in the schools, or write a sermon in a hurry. But these are cases which rarely happen. Even in forced studies we have the satisfaction of advancing our knowledge, which is the common desire of all reasonable beings. Besides, those of great genius suffer but little labour, as they can comply in a short time with what they are obliged to do.

C H A P. V.

BESIDES the testimony of experience and reason, a philosopher gives his vote in our cause; who, by diligently studying all nature,

nature, has most observed what favours or hinders length of life. He is undoubtedly the author who has written most extensively and decidedly on this subject. The learned will know by these words, that I mean Francis Bacon, in his estimable work of the History of Life and Death; where, running through all the professions most adapted to long life, after placing in the first rank a life of contemplation, as that of monks and hermits, he places immediately after it the study of letters, in these words: "Philosophers, rhetoricians and grammarians, come immediately after these in the length of their life." The reason he gives is this: "These also live in ease, and are employed in reflections, which having nothing to do with the cares of life, have consequently nothing corroding in them, but charm with their variety. Their time is also at their own disposal, and they pass their hours in those employments which best please them."

I must confess, however, that this reason has no weight with those learned persons whose maintenance depends upon their study. Physicians and lawyers, upon whose knowledge depends not only their honour, but their interests,

terests, have many cares to fight through, which counterbalance the pleasure they may receive from reading. In these professions the sweetness of study is much counterbalanced by the emulation and disputes which happen when rivals meet. This is a mental war, which, though without bloodshed, proclaims the ardor of their bosoms, by the report which issues from their voices.

C H A P. VI.

AFTER having proved my opinion from experience, reason, and authority, I must answer one objection, that may be made to me, of the frequent complaints the learned make of their bodily indispositions. There are few persons given to study who do not complain of colds, rheumatisms, and other disorders. Upon this account many physicians have written treatises upon the preservation of the health of the learned, as Ficinus de Studiosorum Valetudine tuenda; and Pempilus de Togatorum, Valetudine tuenda. Likewise Bernardino Romazzini

Romazzini de Literatorum morbis. Now it is certain that every habitual indisposition, be it ever so light, especially if it attacks the brain, is a secret worm which preys upon our life. The duration of it must, therefore, be shorter in professors of letters than in other men.

But this argument is not so strong as it appears to be. Colds and rheumatisms are so common, that we hear them complained of, not only by students, but *petit maitres*. All complain of vapours; not that they are more common, but that we are more fanciful. They are rather in our mouths than in our bodies, and the cry against them is greater than the hurt we receive.

Secondly, it is uncertain that any light habitual indisposition shortens our lives. On the contrary, some there are which prolong them. Such are the evacuations from colds, which happen to us from time to time. By means of these the body is disburdened of those bad juices which oppress it, and which increasing, would give rise to some dangerous disorder. From hence many invalids live for a long time, while the strongest persons die in the flower of their age. In the former the body is by little

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and little eased of those humours which oppress it, and do not break out in the strong man till they are come to such a height as to overpower nature.

Thirdly, if the aphorism of Hippocrates is true, that a person of a strong habit of body is in danger, the contrary must be equally so, that a weak constitution lengthens life. This consequence is necessary, and more particularly, as Hippocrates adds to what he has said, that a man who feels himself in perfect health, ought immediately to endeavour to weaken the robust habit of his body. I, however, shall never be governed by this aphorism, if the sense of it is according to the letter. Finally, the health of persons is not so much hurt by study as is commonly thought. I have and still continue to live with such, and I do not hear these great complaints, or see these bad disorders. Ramazzini and other Physicians say that study makes men of a melancholy and fretful disposition. I have experienced nothing of this in myself, or in those who have studied more than I have done. On the contrary, the more learned they are, the more tranquil they seem to be. In the works of the most famous writers, we
perceive

perceive a harmony which breathes through them, unknown to the vulgar.

C H A P. VII.

WHAT I have here said must be understood with some restrictions. The first is what I have before mentioned, that we must not study to excess. It is not always the number of books we read, but the circumstances that attend the perusal of them, which determines this point. He certainly has read too much who finds himself greatly fatigued. Books ought to be laid aside when they create a sensible weariness, because our study will do little good, and the continuation of it much harm. We ought never to read if we find our head oppressed, nor deprive ourselves of the repose necessary to human nature, by which we are rendered incapable of renewing our attention.

We must take care, secondly, to be cautious in the quality of what we eat or drink, which will hurt studious persons much more than those occupied in the affairs of the world.

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Thirdly,

Thirdly, we must intermix a little bodily exercise with that of the mind. Here I think we may remark with Plutarch, that the exercise of reading aloud, or disputing, is one of the most useful which there is for our health, and the strength of our body; for the motion of our breast, which produces the voice, not only gives exercise to our limbs, but to the very entrails and most vital parts (*lib. de tuenda bona valetudine*). And a little lower, "the voice is
 "an agitation of the animal spirits, not lightly
 "or externally, but in their very inmost recesses.
 "It increases the natural heat, subtilizes the
 "blood, purges the veins, and opens the arteries. It does not suffer any superfluous humours to condense or adhere together, but
 "they subside like dregs, from those vessels
 "where our food is received and digested." Great is the advantage to the profession of students to have within their sphere so wholesome an exercise.

My fourth advice is, that persons of study should relieve their application by some honest diversions, which not only give strength to the body, but also to the mind; for mirth unfolds our genius, and renders it lively. Those who write want this recreation most, especially if
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they are naturally of a melancholy disposition. My last advice is to vary your studies ; for variety pleases the mind in this as well as other employments, and whatever pleases strengthens it. The reading of a fresh book relieves the weariness which we have suffered from a former. This is to be done, if in our power, for all are not capable of giving their attention to different subjects. Our souls are limited, but some more than others. There are those whose extension is so very confined, that they can only follow one particular science, and if they apply to more, they will become like the Biscayan, who forgot his own language, and did not learn the Castilian.

F I N I S.